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Osteopathy in the Treatment of the Ear, (Illustrated)

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Osteopathy has invaded the field of the specialties, and although practiced less than a fifth of a century it has extended its scope of usefulness until it now includes the majority of them.

Of all the specialties there is possibly none in which the osteopathist has a wider field then in otology. Including surgery, which is a part of osteopathy, also antiseptics and anaesthetics when necessary, the entire field is easily within his reach. As in ocular disturbances we find the central nervous system affected in proportion to the severity of the case, so in aural deficiencies we find a proportionate abnormal condition of the brain and system in general.

Situated as is the ear, among the largest blood vessels in the head and in such close relation to the brain, it is not a wonder that the various disturbances are constantly taking place in and around the organ of hearing. The success of the osteopathic specialist in otology, as in other fields, is due to the fact that his diagnosis and prognosis are based on the examination and consideration of the tissues according to anatomical and physiological principles.

A wise physician once said that "no man should specialize until he had been a general practitioner for at least five years." No doctor can assume a practice along special lines with complete success until a certain amount of general experience has been gained. Simply knowing every anatomical point and physiological detail is not sufficient to make an accomplished physician. It is the daily training and experience added to the professional knowledge that makes him proficient. It is not the examination of one case or a dozen cases, but a great number and variety that makes him feel that he is competent to handle the case in charge.

As it is impossible to cover to any great extent the field of otology in this paper, we will, after giving a detailed description of aural examination, confine ourselves to certain phases of the ear, interesting from our standpoint. The following is a copy of the regular routine record we use when examining these cases:

AURAL EXAMINATION BLANK

NAME.
AGE.
OCCUPATION—
- Open air.
- Noisy surroundings.

DURATION AND COURSE—
- Sudden.
- Insidious.

CAUSE—
- Simple otitis media.
- Result of general disease.
- Osteopathic lesions.
- Result of the use of drugs.
- Injury or exposure.
- Nasal obstruction.
- Use of syringe or instruments in the ear.

SUBJECTIVE SYMPTOMS—
- Continuous or intermittent noises.
- Buzzing in the ear or head.
- Pulsating sensations.
- Constant tinnitus.

Aural discharge.
Odor.

INSPECTION—
Malformation.
Scars.
Inflammation.
Tumors.
Scrofula.
Pus.
Polypi in auditory meatus.
Fistulae.

PALPATION—
Tumor.
Edema (otitis externa).
Infiltration (mastioditis).

EXTERNAL AUDITORY MEATUS—
Width.
Cerumen (color and consistency).
Epidermic (shreds and scales).
Furuncles.
Polypi.
Inflammation.
Pus.
Foreign bodies.

TYMPANIC MEMBRANE—
Color (normally grayish).
Transparency.
Opacity.
Perforation.
Inflammation.
Infiltration.
Light reflex.
Concavity and convexity of the ear drum.
Scars.
Exudates.
Retraction.

FUNCTIONAL TESTS—
Whisper.
Watch.
Tuning fork.

The nerve connection of the ear in relation to the cranial nerves includes some of the most important and far reaching. (Fig. 1.) We would not consider a description of the nervous mechanism of the ear complete without including the pneumogastric with its far away branches; the glosso-pharyngeal and its tympanic connections; the facial nerve and its association with palsied conditions; the trigeminus and its facial ramifications, and communications with the 7th nerve; the superior cervical ganglion with its very close connection with the tympanum and the carotid plexus found on the internal carotid artery.

The three parts of the ear are so closely connected, although separately considered anatomically, that in discussing one part it is necessary to show its connection with the other two. The blood vessels are controlled mainly by vasomotor fibers through the cervical sympathetic ganglia, and the nerve supply to the various parts of the ear communicates, with the exception of the auditory nerve, with the superior cervical ganglion. (Fig. 2.) This ganglion is connected with the 5th, 7th, 9th and 10th cranial nerves; and the tympanic plexus, formed by fibers from these various nerves, regulates the vasomotor, secretory, and trophic impulses of the mucous membrane.

The vertebral plexus is closely associated with lesions affecting the ear. From this plexus of nerves surrounding the vertebral artery we find minute branches extending as far as the internal auditory artery, which enters the meatus to supply the inner ear. Atlas lesions readily affect the vertebral arteries, which lie in such close relationship to its upper border, held in place by connective tissue. (Fig. II.)

The relation of the 7th nerve to the tympanic cavity traversing its walls, makes disease in that region of vital importance in relation to the nervous tissues. Affections of the tympanic cavity are frequently communicated to this nerve and are often prodromal symptoms of a fatal termination. Osteopathically we can readily understand how paresis of the facial nerve can be produced through pressure of the hyperemic stylo-mastoid vessels; how a deficiency in the facial canal may be followed by paralysis due to a congested condition of the mucous membrane over the nerve, or of a tympanic exudate; how an extension from the meninges of an inflammation, purulent in nature, to the 7th in the internal auditory meatus may allow infection, injuring the facial and auditory nerves, with the possibility of the Fallopian canal being obstructed by hemorrhagic products.

In our daily practice we often overlook the importance of the ear in its

relation to facial nerve disturbances. Cases of Bell's Palsy are often caused by disturbance of the facial nerve inside of the temporal bone rather than outside of its foramen. We find lesions of the atlas and axis disturbing the nerves communicating with the facial nerve at its exit, and while they may produce an aggravated condition of the nerve already disturbed, yet the primary lesion is sometimes found within the facial canal itself. Beside the facial nerve in this canal lie the stylo-mastoid artery and vein (Fig. 1), which in their normal condition occupy very little space, but in a hyperemic condition, the facial nerve may be impinged to the extent of producing in time a palsied condition of the muscles to which the nerve is distributed.

An injury to the facial nerve in the Fallopian canal may be so slight that no external symptom will appear, but if there be a traumatic neuritis with effusion into the sheath of the nerve the prognosis is less favorable. Tinnitus aurium, so often associated with ear troubles, must be carefully differentiated as to whether its origin is functional, or whether the results of disturbance in the relation of the fenestra ovalis to the stapes; or whether labyrinthian, or tympanic, etc.

Of all symptoms manifested in ear diseases, noises in the head are paramount, whether the disturbance is in the external, middle, or internal ear; but a purely functional tinnitus, just referred to, must be kept distinct from the other noises. A functional tinnitus may occur in a person with healthy ears, and continue indefinitely, although seldom of such a severe character as in diseases of the internal and middle ear. It is described by patients as a steady sizzing, buzzing, or hammering sound, varying according to their powers of description. It may continue for years, and is too often brought on by frequent use of drugs such as quinine, salicylic acid, alcohol or the result of insomnia, neuresthenia, etc. Even functional tinnitus, if persistent, may be a prodromal of middle ear disease involving a fixation of the stapes.

Tinnitus aurium must be distinguished from tinnitus cerebri. The latter is less frequent and more vaguely located. Associated with most cases of tinnitus aurium is a neuropathic diathesis, with vasomotor irregularity. While tinnitus may be caused as a result of impacted cerumen pressing on the tympanic membrane, yet it is most commonly found in connection with affections of the middle and internal ear mechanism. The most annoying form of tinnitus usually is that associated with cardiac abnormalities producing systolic intensification corresponding with the heart's contractions. These symptoms are almost invariably subjective in nature and the most acute stethoscope is unable to detect the sound.

In the diagnosing of chronic middle ear suppurations it is sometimes difficult to determine whether the facial paralysis is due to traumatic condition of the facial canal or a labyrinthian necrosis. If it is the result of an extension of the inflammation and infection into the Fallopian canal, accompanied with an inflammatory exudate about the nerve sheath, an increased amount of fluid may cause sufficient pressure to destroy the function of the nerve. The resultant necrosis of the bone within the canal may form sequestra, and direct infection to the nerve trunk from the middle ear may take place. The nerve trunk may be partially or completely destroyed, or the formation of polypi or granulation may occur as the result of the exposure of the nerve from necrosis, and a pressure sufficient to inhibit the nerve function or completely destroy that section of it. If the necrosis involves the internal auditory meatus the auditory nerve (Fig. IV) also is disturbed in its function.

As osteopathists, we look at aural diseases from a standpoint differing from that of any other therapeutist. We picture in our minds the ramifications of the small blood vessels in their relation to these nerves. Associated with the facial nerve in the Fallopian canal, we

see the stylo-mastoid artery and vein, communicating along its course with the mastoid cells, stapedius muscle, and the tympanic cavity; in the internal auditory meatus, the internal auditory artery and vein; in the hiatus Fallopii, the great superficial petrosal nerve accompanied by a petrosal branch of the middle meningial artery anastomosing with the terminal of the stylo-mastoid (Fig. 1), and so on to the various openings and communications of the nerves of the tympanic cavity we see the possibilities of vascular disturbance and nerve tissue involvement through cervical lesions, mandibular luxations, etc.

In considering a case of suppuration, especially chronic, we cannot desist from picturing a condition of the nerve and its sheath in relation to the blood vessels accompanying it, and the possibility of infection to this nerve and resultant disturbance in the nerves' terminals. The presence in the middle ear of suppurating matter as well as necrosis of the Fallopian canal in that region, may lead to serious disturbances of not only the facial nerve and its terminals but other nerves and vessels communicating directly and indirectly with the tympanic cavity. The sheaths of the smaller nerves such as the petrosals, leaving the middle ear through osseous foramina, may be affected in proportion to the severity of the septic contamination.

The facial nerve seems to divide naturally into certain parts corresponding with the giving off of its branches, and the symptoms, from the involvement of these terminals, offer us great possibility for locating more or less definitely the region of the nerve affected. For example, if there is a disturbed function of the salivary glands we would naturally suspect that injury to the facial nerve in the canal would be between the stylo-mastoid foramen and the point below where the stapedius branch is given off. (Fig. 1.) This section would include the chorda tympani nerve with its branches which contain taste fibers, and fibers concerned in the secretion of saliva. If, associated with facial paralysis and diminished salivary secretion, the presence of a tinnitus aurium, and a deafness to a certain degree, or an abnormally acute hearing, we would select the section between the giving off of the chorda tympani nerve and that of the geniculate ganglion. This section includes a branch of the stapedius muscle controlling the stapes in the fenestra ovalis, etc.

Great care must be taken in differentiating between ordinary deafness and nervous deafness. This may be determined easily, however, by making a test with a tuning fork or watch. If the aerial conduction is normal when the fork is placed in contact with the skull, even if not heard when placed over the ear, we know that the deafness is of the ordinary variety. If however, the fork is not heard at all on bone conduction, the case may be considered as one of nerve origin. In this case the auditory nerve is at fault and the vibrations are not recorded, even should the aural conduction be perfect.

It is well to keep in mind that the auditory nerve is double in its function and that the nerve is really two in its distribution. (Fig. IV.) The cochlear branch supplies the organ of Corti and is concerned in hearing, while the vestibular branch supplying the semi-circular canals has to do with the maintenance of equilibrium, and is a space-sense nerve.

TREATMENT

Osteopathically, much can be done in the field of otology. As referred to in the first part of this paper, the strong point in osteopathic diagnosis and treatment consists in considering the subject directly from an anatomical and physiological standpoint, and a much more favorable prognosis may be given. The percentage of cases successfully treated is higher than that in any other therapeutic agency. Osteopathy always has, and always *will,* stand for the normal integrity of body tissues. Functional disarrangement means disturbances in the

body organism. Pathological conditions are the result of disturbed circulatory and nervous tissues. Corrective osteopathic work always results in a return toward the normal of the perverted function. So in diseases of the ear, careful, painstaking efforts in removing mechanical lesions and physiological obstructions mean a return toward the normal of these diseased conditions.

There is this about the work of a specialist. His entire time is supposed to be devoted to his subject, and the brevity with which constitutional treatments are given in ordinary cases of systemic troubles, does not apply to the specialist in his particular work. Time must be taken to remedy the smallest irregularity, whether an obstruction, impingement, or malposition of the slightest degree. No vessel or nerve tissue is too small to be overlooked in treating these cases.

In the first part of this paper a detailed examination blank has been inserted, giving the usual procedure for examining aural cases. A few additional points bringing out details may be added.

After examination of the external auditory meatus with reflected light, and the removal of ordinary obstructions, if such exist, we proceed to determine the cause of the trouble from the osteopathic side, unless it is a simple case of tympanic perforation, or a local aural disturbance. As we usually find ear cases complicated with catarrhal conditions of middle ear or Eustachian tube, circulatory disturbances exist, and it is from the standpoint of these disturbances and their relation to and communication with other vessels and tissues, that we are most concerned.

Careful cervical examination of the atlas and axis, or even lower down, may reveal impingements disturbing the superior cervical ganglion and its connection with the internal carotid plexus, or may involve the pneumogastric with its auricular branch; the glosso-pharyngeal with its tympanic branch (Jacobson's nerve); or the facial nerve through its communication with the third cervical nerve by its great auricular branch. (Fig. II.) Associated with this nerve, the facial, is the spheno-palatine and otic ganglia connected with the maxillary divisions of the trigeminus nerve. Parotitis may impinge the facial nerve to the extent of inhibiting the function of its terminals. Mandibular subluxations are among the causes of disturbed tissue function in relation to the middle and external ear.

In considering the vasomotor control of the blood vessels to the various parts of the ear it is well to remember that all vaso-constrictor impulses must pass from the bulb down through the lateral column of the spinal cord to at least the level of the 2nd thoracic ganglion, and then by way of the sympathetic chain through the inferior and middle to the superior cervical ganglion, which serves as a relay station, before impulses are conveyed to the vasomotor nerves in the carotid and cavernous plexuses.

Not so with the vaso-dilators, as we see an instance of this in the chorda-tympani, which conveys vaso-dilatory impulses to its terminals, and are not confined or limited to certain ganglionic centres as are those of the vaso-constrictors.

Through the inferior cervical ganglion the vertebral vessels are supplied with vasomotor fibers, and strange to say, the vertebral arteries, joining to form the basilar, are those which give off small branches to supply the medullary centre from which all central vasomotor impulses arise. In order that the internal auditory artery, for instance, should receive an impulse for vaso-constriction, the vasomotor tract must be from the bulb by way of the thoracic ganglion back to the head through the vertebral plexus. As time is no factor in the traveling of normal nerve impulses, this is possibly no hindrance to the regularity of its control. However, its path may be blocked to a certain extent in abnormal conditions through atlas or axis lesions, or even 2nd or 3rd thoracic lesions. Similar lesions of the atlas or axis may disturb the blood supply to the central vasomotor centre.

Again, these same lesions may not interfere with the impulses conveyed from the vasomotor centre to the dorsal sympathetic ganglion, and yet interfere with the return impulses passing by way of the superior cervical ganglion. The glosso-pharyngeal through its petrosal ganglion, which is connected with the superior cervical ganglion, may be disturbed in its tympanic functions by cervical lesions.

A prognosis must be based then on the osteopathic examination, as well as on aural inspection, palpation, etc.

Where in the therapeutic world is there a treatment for otalgia, tinnitus, suppuration, etc., equal to that of osteopathic for quick and permanent relief? We are yet to see the best results in our specialties. Time will favor us with a greater number of acute cases, patients will believe more in prophylactic measures and we will not have to depend wholly on the chronic cases of various stages which are now forced upon us in superabundance. Am I not right in saying that, although our science is condemned by some as being inadequate, principle for principle, we have fewer non-scientific methods in our system than in any other. The percentage of cases cured would be much higher if we had an equal showing in the matter of cases coming to us in a no more chronic condition than they take to the other schools of practice. The majority of cases so far, coming to us for examination and treatment, are those which have been experimented with, if, I may say that, by specialists in other therapeutic measures.

It is not uncommon to see cases under ordinary medical treatment drift from the acute stage to the chronic during treatment. This would certainly be uncommon in osteopathic practice. The regulation of the circulation, the freedom from impingement and obstruction, renders the case most likely to return toward normal from that instant. I am altogether optimistic in the adequacy of osteopathic measures and I cannot as yet see how a case of cold could drift and terminate in chronic suppuration, tinnitus, aurium rhino-pharyngeal contamination, etc., if proper osteopathic measures were being used. If you look at the mechanism of the middle and internal ear you will observe that nature has provided natural drainage, following the lines of gravitation. The various openings connected with the tympanum and labyrinth are such as to afford the best possible means of vascular freedom, supposing that we are considering a case of hyperaemia of the aural vascular tissues.

Outside of osteopathic measures, tinnitus aurium is considered difficult to handle, and the prognosis given in most text-books is unfavorable. We have found in our work that these symptoms are due to a disturbed condition of the circulation and nerves, and that upon corrective work being done, and thorough relaxation of all tissues, the vessels tend to clear up conditions so that the symptoms are greatly relieved, and as a rule disappear entirely, unless it is a complicated case as referred to in tinnitus cerebri.

The tensor tympani muscle, controlling as it does to a certain extent the tympanic membrane, is supplied by a branch from the otic ganglion through the motor branch of the 5th nerve. Cervical lesions affecting the superior cervical ganglion through their ascending branches act with the 5th nerve by way of the otic ganglion, disturbing the tympanic membrane through this muscle.

Mandibular subluxations also tend to irritate the tissues over the nerves passing through the parotid gland, impairing the nerve supply to this muscle.

The innervation of the stapedius through the 7th nerve may be disturbed through the anterior branches from the superior cervical ganglion. The Eustachian tube is supplied by sensory impulses from the 5th cranial, while the sympathetic or vasomotor fibers come from the superior cervical ganglion and control the vascular supply.

Specialties in the osteopathic profession are just in their infancy, and time only

will reveal their great possibilities. Along the lines in which osteopathists have been specializing for some years, such as in obstetrics and gynecology, osteopathy has proven its efficiency, and we shall yet see the day when we will have many osteopathic specialists in the field of eye, ear, nose and throat.

Long live osteopathy, as taught by Dr. A. T. Still, the founder of our system. Its principles have been sufficiently scientific to establish a new school of therapeutics on a sound basis in a decade and a half, against the most active and persistent opposition, and I sincerely believe that within the next decade, which should be in our day, osteopathy will have its specialists in every branch of the healing art that has been specialized in. The little ripples set in motion when Dr. Still announced to the world that a new science was born, have widened until they have spread over almost the entire surface of the therapeutic world. The horizon has broadened until osteopathy is known not only in continental Europe but in the Islands of the sea and the far away Antipodes.

4 RICHMOND ST., EAST.

Protozoan Diseases

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(Address delivered before the American Osteopathic Association at San Francisco, August 5, 1910)

Our increasing knowledge of the world in which we are living adds new force each day to the thought that every fact is in some way related to every other fact, and that he who would know one thing well must know something of everything.

Any one who will take the time to examine old files of catalogues of medical schools will see how slowly but surely the field of the physician's education has enlarged. It is not many years ago that biology first became a part of the education of the physician. This subject was added to his curriculum not because any one supposed that it had a close relationship to his future work but because it was believed that a broader knowledge of life would add to his general culture and give him a broader outlook than he would otherwise possess. With increasing knowledge, however, it has been found that one can no more be an all-round physician without being a biologist than he could be a successful surveyor without a knowledge of mathematics.

For the last twenty years or more the critical student of the human body has known that a considerable number of diseases are due to bacterial invasion of the body. For a somewhat less length of time he has known that bacteria are more nearly related to vegetables than to animals. Until recently his attention has been so closely fixed upon these diseases known to be due to vegetable or bacterial invasion that he has given little or no heed to diseases which are caused by animal parasites. The investigations of the last ten years have thrown a wonderful flood of light upon a considerable number of tropical diseases of an infectious nature which are positively traced to animal organisms rather than to plant organisms. The animals producing these diseases belong to the sub-kingdom protozoa and they are characterized by being unicellular in structure. A few of them may pass directly from one animal to another but the greater number of them spend a part of their lives in some intermediate host, and this host, in a considerable number of cases, is found to be some insect.

Many of these protozoan diseases are extremely serious in their nature. In fact, most of them do not yield to any treatment with which we are at the present time acquainted, and it is by no means

improbable that we shall eventually find that the only way to deal with them successfully is by prevention, and in order that we may intelligently prevent these diseases it is necessary that we should not only understand the nature of the organism producing the disease, but that we should thoroughly understand the life history of the intermediate host by means of which the organism is conveyed from one person to another. In coming to the Pacific Coast our eastern friends passed over hundreds of miles of plains which at one time were the home of herds of horses perhaps as numerous as were the buffaloes in the days of our fathers, and the place where we meet to-day was once inhabited by the mammoth, camel, and giant sloth and large numbers of other animals now extinct. What became of them? And why did they disappear from a region which appears to have been so favorable for their lives? Many answers have been given to this question but until comparatively recently none of them rested upon anything more substantial than speculation.

A few years ago there was found in the shale of some of the late geological deposits of the Pacific coast remains of a Tsetse fly. The species is not exactly the same as that which renders parts of Africa uninhabitable to-day but a species closely allied to that dread insect. The evil of this insect consists not in itself, for it is probably no more annoying than many other insects, but it acts as the intermediate host of the protozoan parasite which is absolutely fatal to the animals infected with it. In other words, an explanation of the disappearance of those great animals which were once so abundant may be that they were destroyed by the protozoan parasites with which they were inoculated by insects, in very much the same way that animals and people are inoculated at the present day.

There are now considerable parts of Africa absolutely uninhabitable for the horse, dog and cow, and there are other parts which have long been known as the "white man's grave," and all of this not from any "miasm" or inherent unhealthfulness of climate but solely from protozoans which are conveyed by insects.

It is said upon good authority that malaria is the great scourge of the human race and that more people die from malaria than from any other disease. As one form of malaria, at any rate, is a disease with which we are all of us more or less familiar, I am going to follow through with some care the life history of the malarial parasite, and we may properly regard this as being typical of all protozoan parasites which have a host intermediate between the human victims.

In this case the protozoan host is a mosquito, belonging to the genus Anopheles. It is a curious fact that if the malarial parasite is taken into the body of the common mosquito (Culex) it is straightway digested and thereby killed.

In giving the life history of the malarial parasite, it is perhaps best to begin with it in the human blood. In the human blood the malarial parasite first appears as a minute gelatinous mass, belonging to the group of protozoans known as the sporozoa. It is quite possible that the organism producing both smallpox and scarlet fever belong to the same group, though this is not positively known. This gelatinous mass in the human blood soon buries itself in a blood corpuscle and in this red corpuscle it undergoes cell division, producing from 6 to 12 new individuals. These are extruded in the general blood stream and like the original mass soon embed themselves in blood corpuscles where the process of reproduction either by sporulation or cell division is repeated. In this way the number of parasites repeatedly increases, and in common tertian malaria in about two weeks' time they have reached such numbers as to seriously affect the health of the individual harboring them. If the blood of the patient is drawn and is exposed to a lowered temperature, many of these parasites undergo a marked change. Processes resembling pseudopodia (or false feet) are rapidly shot out from the protoplasmic masses. These

become easily detached from the parent mass and for a short time they display a remarkable vitality. If they come in contact with other malarial parasites which do not produce pseudopodia, the pseudopodia are readily absorbed by these. Of course, when this occurs in an ordinary drop of blood drawn from the body, it is of no significance, whatever, but if the parasite is taken into the body of the Anopheles mosquito similar changes occur and this is full of significance. The pseudopodia which form on malarial parasite in the body of the mosquito are really gametes, or true male cells and their union with non-pseudopodia producing parasites results in true fertilization. This sporulation in the body of the mosquito is soon followed by a rapid self-division of the fertilized individuals and the parasites thus formed, by passing through the tissues of the mosquito, work their way into glands whose secretion is forced into the human being whose blood the mosquito sucks. In this way the cycle of the parasite's life is completed and it is ready to begin again.

It has been suggested by some very able biologists that the action of these blood parasites has been of far-reaching significance in the history of animal life; that not only have they caused the destruction of large groups of animals but that they have been the means of forcing cold blooded animals, or animals whose temperatures are subject to continual variation, into a fever which has become physiological. In other words, that they possibly give us a clue as to how warm blooded animals may have developed from those whose temperatures was subject to variation. Whatever may be the value of this speculation, the facts remains that the blood parasites have had a remarkably wide distribution, both in time and space. We have positive evidence that animals in the tertiary geological period suffered from them, and they certainly belt the earth with a girdle extending almost from one frigid zone to the other. It is estimated that five million people perish every year in India from pernicious malaria, and there are at least two million new cases which develop each year in Italy with a death rate of fifteen thousand annually.

The protozoan producing amoebic dystentery belongs to the group Sarcodina. As I discussed this matter at some length two years ago I pass it at this time.

Another protozoan group of widespread importance is the Mastigophora. These unicellular organisms are characterized by possessing one or more flagella, by means of which they secure their locomotion. Sleeping sickness is due to one of these organisms. While the disease is largely confined to equatorial Africa, a few sporadic cases have been observed in the United States. The disease is due to the Tripanosoma gambiense, and, like several of its near relatives, which affect animals, it is conveyed by the Tsetse fly. In other words, the Tripanosoma passes a part of its life in the human being and the rest of the cycle of its life in the Tsetse fly. It is now a well known fact that while the large animals of Central Africa have become immune to the Tripanosoma our domestic animals are quickly destroyed by it.

Syphilis appears to be produced by the spirochete (Treponema) pallidum, another member of the group Mastigophora. Still another member of this group is responsible for the tick fever, which is rapidly becoming a dreaded disease in Montana, Idaho and some of the other mountain states. At the request of the Department of Agriculture, I have made a somewhat careful examination of dairy cows in and around Los Angeles, but I have failed to find on them any of the ticks which form the intermediate host of the Tripanosoma producing the tick or mountain fever.

Although the disease, ankylostomiasis or hook worm disease, is not produced by a protozoan, it is a disease of so much importance that I am going to say a few words in regard to it. It is one of the very old diseases which have affected humanity. It is said that a reasonably good description of the disease has been

deciphered on an ancient Egyptian papyrus. It was described by some of the old Spanish physicians in Brazil as early as 1648, and at the time of our revolutionary war it was recognized as a dangerous disease in tropical countries. It was not, however, until about 1850 that the disease was definitely associated with the hook worm, and it was not until 1893 that the disease was recognized in our country. The first case observed is said to have been in St. Louis.

There are two closely related worms responsible for this disease. One is known as the Necator americanus, and the other as the Ankylostoma duodenale. The specific name of the last species named is indicative of the part of the alimentary canal in which it is frequently found. The disease has received a number of different names: Egyptian chlorosis, Brickmaker's chlorosis, Tunnel anemia, Miner's anemia, being some of the more common names. It will be observed that all of these names associate this disease with the ground. We now know that the disease is very widespread and that its moral and physical effects are disastrous in the extreme. "The poor whites" in the South and the clay eaters of Georgia and Florida have long been objects partly of sympathy and partly of contempt. It is certain that their pitiable condition is due very largely to the parasites which they harbor. The only positive diagnosis of this disease is made by finding the eggs of the worm in the excreta of the patient.

Unlike the eggs of the whipworm (Trichocephalus trichiurus) or the eggs of the Ascaris lumbricoides, the eggs of the hookworm are not stained by bile but present a clear, hyaline appearance. When these eggs are carelessly discharged upon the surface of the ground they hatch in from 24 to 48 hours. After hatching they pass through a series of changes requiring about four days before they are ready to enter the body of the victim. At the end of about four days these changes are completed and whenever they have an opportunity to come in contact with the bare skin they quickly bore their way into the tissues. The result of this is an extreme irritation of the skin, producing what is known as the "ground itch" or dew itch.

After the parasites have entered the body they quickly find their way into the blood stream and when they are carried to the lungs they find their way into the air cells of the lung from which they gradually work their way into the throat through the trachea, and from here they are swallowed and soon reach their permanent home in the alimentary canal, beyond the stomach.

From what has been said of the hookworm it is evident to us that the careful disposal of excrement from the body is the natural means of protection. If this matter receives proper attention, the spread of the disease becomes an absolute impossibility.

PACIFIC COLLEGE OF OSTEOPATHY.

Announcement

The following named osteopathists of Chicago are appointed as members of the arrangement committee for our A. O. A. meeting next year, and each one heads or has been selected as chairman of a local committee. This has been arranged by the Chicago people so that all committees will work together with the arrangement committee.

Dr. J. R. McDougall, Chairman.

Dr. Fred W. Gage, Secretary and Treasurer of all committees.

Dr. A. W. Young, Banquet Committee.

Dr. H. S. Bunting, Press Committee.

Dr. F. J. Smith, Reception Committee.

Dr. F. C. Farmer, Clinics Committee.

Dr. E. R. Proctor, Halls Committee.

Dr. A. P. Kottler, Registration Committee.

Dr. Frank E. Dayton, Information Bureau Committee.

Dr. A. J. Goodspeed, Entertainment Committee.

A. G. HILDRETH, D. O., *Pres.*

Flat Foot—Its Cause and Cure

GEORGE D. WHEELER, D. O., MELROSE, MASS.

(Paper read before the New York Osteopathic Society, October 26th, 1910)

Flat foot, or more generally weak foot, is a very common condition and not always recognized, many cases being treated as rheumatism. We may have the condition making itself felt in the back, the knee, the calf of the leg, the peroneal muscles, the heel, or in fact any part of the foot. A weak foot is quite intractable to treatment and requires much perseverance on the part of both physician and patient. Many of these cases occur in elderly people who have greatly increased in weight and have, as a matter of fact, become too heavy for their feet. These, to my mind, are among the few cases in which the support may be permissible, perhaps being the least of the evils.

FAULTY SHOES AS A CAUSE

Weak foot sometimes follows a severe sickness or rheumatic trouble or some sudden strain brought upon the foot. But by far the greatest number of cases is caused either by faulty shoes, faulty walking or a combination of these factors. Many children from the time they begin to walk are instructed to toe out, keep the knees in, so as to walk gracefully. This manner of walking brings the greatest possible strain on the arch and ankle and prevents the strong muscles of the foot from acting properly. Most cases of mettatarsalgia and Hallux valgus and varus, especially valgus are due to the same conditions, but more especially to improper shoes, for without a proper shoe it is impossible to use the foot correctly.

Did you ever stop to think what would happen to the hand if we should give it the same treatment that we give the foot, namely, to strap it up in a tight, ill-fitting leather case and keep it strapped through a large part of the twenty-four hours. Do you believe that we would have the same strong, flexible, useful member that we have at present? Of course, you know we should not. And this thought explains, at least partly, why we have so much complaint about the feet. The foot has no chance to keep strong or to get strong when weakened.

One thing is certain, supports do not tend to strengthen the foot but always have a tendency to weaken, throwing the weight of the body to a part of the foot not intended to carry it, bringing pressure on muscles, blood vessels, and nerves and interfering greatly with the general nutrition of the foot. I believe the only reason that the foot acts as well as it does, is because the working muscles are largely outside the foot, consequently are not subject to the same pressure and confinement.

If we believe that the foot in its normal condition is correct in shape and action for walking, then we must believe that the moccasin is the perfect shoe. So then the nearer we approach the idea of the moccasin in a shoe, the nearer we approach the correct shoe. I do not mean to say that this is absolute, but it is relatively true. I believe if everyone wore such a shoe we would hear much less about foot troubles.

After we have the condition of flat or weak foot established, then we may need to change the shoe. The shoe should be low cut, flexible in every particular and with a decided swing of the toe inward.

SOME OSTEOPATHIC CAUSES

Now there are some osteopathic causes for foot weakness, namely, innominate lesions, lesions in the lumbar region, a lateral curve or swerve of the spine. There is often displacement of some

of the small bones of the foot, but after all I come back to my original proposition, that faulty shoes, faulty walking, and I might add, faulty standing, are largely to blame.

Now, as to the condition that we have to deal with. The foot may or may not show trouble. Many times the foot looks all right when not bearing weight. In suspected cases, I look at the patient's shoe. If it has been worn for any length of time it will usually be crushed down in the shank or the heels worn lower in front, and perhaps the sole shows wear far back toward the hollow of the foot. Pain and tenderness are usually present. The scaphoid and the astragalus are usually tender.

Another point of tenderness is along the margin of the os calcis, where the plantar fascia is attached. These are all signs of foot trouble.

In most cases, if you have the patient walk toward you, then from you, you can easily see the trouble. The toes are turned out, the foot pronated, the inner malleoli sagging and a great strain brought on the inside of the arch and ankle. I believe much of the pain comes from the ankle joint being thrown out of level, so to speak. Then we have the scaphoid and the head of the astragalus displaced inward and downward. These bones, and especially the scaphoid, when in a normal position act as the key to the arch. In the bad position assumed, the scaphoid tends to be pulled out of place by the tendon of the tibialis posticus, the tendon of this muscle having an important attachment to the scaphoid. The ligaments become stretched, and if an arch is worn the nerves and blood vessels are greatly interfered with.

TREATMENT OF FLAT FOOT

I think I have said enough about the condition and will now take up the subject of treatment. After what has been said, the treatment is plainly indicated; namely, correct and treat any osteopathic lesions that may be found, give the patient a shoe in which he can use the foot, then teach him how to walk, so as to correct the condition and relieve the strain on the foot.

As I have said before, I believe plates or stiff shoes should seldom, if ever, be worn. Much of the benefit that seems to be derived from them comes about from the endeavor of the patient to get away from the plate. If a patient comes to me wearing plates, I try to induce him to make a change, as in most cases continuous use of plates leads to greater trouble with the feet. Plates in every case, limit the natural action of the foot, and this natural action is what we should strive in every way to improve.

Osteopathically, aside from the lesions before mentioned, I treat the legs and feet, especially the muscles of the calf of the leg, giving them a spreading, relaxing movement. I endeavor with each treatment to mold the foot into shape, inverting the foot and throwing the scaphoid and astragalus up into place, doing everything in my power to bring the foot into a proper condition for walking.

Now as to walking correctly, and by walking correctly we mean correctly to help the condition of flat foot. We have to exaggerate proper walking somewhat, so that it may become corrective. In normal walking, we should walk straight over the foot with the knees slightly relaxed and the weight thrown on the outside or the pad of the foot, keeping the feet parallel. In the condition of weak or flat foot, we exaggerate this method, teaching the patient to decidedly toe in, throwing the knees up and keeping some tension on the muscles of the foot, holding the arch up. The simple act of toeing in will many times immediately relieve the pain in walking. This is where the shoe that has the decided swing helps out, for without some such shoe it is almost impossible for a patient to walk in the manner described.

If a patient presents himself who has been wearing plates for any length of

time we may, on removing them, temporarily strap the feet, using adhesive plaster. Have the strips of plaster about one and one-half inches wide, take a turn and a half about the foot, bring the end well up on the leg. A second strip can be applied to the inside of the foot and ankle which gives added support, acting somewhat like a sling. If there is much hair on the leg, it should be clipped off. This bandage will give great temporary relief but cannot be worn continuously, as in most cases it irritates the skin.

Sometimes I use the rubber sponge in the shoe. This sponge gives some support and keeps the patient conscious that he needs to hold the arch up. For after all is said, the patients have largely to perform the cure themselves. They must learn to grip the ground with the toes and in this way develop the muscles of the foot and leg. When standing still, they should keep some tension on the muscles of the feet and not allow the arch of the foot to drop. If there is great pain, immersing the feet in hot water for a few minutes will often give relief.

Mr. Lewis Small, of Boston, to whom I am indebted for many of my ideas, recommends patients to walk barefoot in soft dirt or in the grass when the dew is on, or what is much better, beach sand, going out where the water comes over the feet. The cold water and the sand giving way somewhat, acts as a stimulating massage and exercise, increasing the circulation and tending to bring the foot into proper positions.

I have mentioned the muscles of the feet. The flexor longus hallucis is one of the most powerful muscles in the leg and of great importance in walking. It is especially important in the treatment of flat or weak foot. The origin is largely from the lower two-thirds of the shaft of the fibula. The tendon grooves the back of the astragalus and afterwards the under surface of the sustentaculum tali and is inserted into the base of the last phalanx of the great toe.

The tibialis posticus is also important as it adducts the front of the foot, inverts the sole and helps to support the arch. It draws back the lower part of the scaphoid and helps to prevent the descent of the astragalus between the scaphoid and the calcaneum. The small muscles of the foot become important, especially when they have a chance to develop, as they largely control adduction and abduction and assist in flexion and extension.

Here then are some of my ideas: that flat foot and weak foot are generally self-produced or induced, hence it should be largely eliminated; that it is due in most cases to faulty shoes and faulty walking; that as prevention is always better than cure, we should endeavor to influence those with whom we come in contact to adopt more practical shoes and better form in walking and standing; that many cases are very hard to cure, especially those who have greatly increased in weight or have worn artificial supports of any kind for a considerable length of time, also cases in which the neurasthenic element is involved; that wearing plates is unnatural and should never be advised except in extreme cases; that the narrow toed shoe and high military heel likewise should be discountenanced, at least for common wear.

120 NO. EMERSON ST.

The Chicago Meeting

All indications point to a great meeting in Chicago the last week of July. In fact there are positive assurances of its success. The program when announced will prove irresistable to practitioners, and the location is so convenient, there can be no escaping it.

The committee heads and the general arrangements are announced in this issue and the program is outlined. Every practitioner should make his plans for the summer to harmonize with this last week in July to being spent in Chicago.

The Doctor Within Our Bodies

ERNEST E. TUCKER, D. O., NEW YORK, N. Y.

(Address before the New Jersey Osteopathic Society at Newark, N. J., October 15. 1910)

The body may be pictured somewhat schematically as having two surfaces, an inside surface and an outside surface. The outside surface consists of the skin, the muscles and bones—for as anyone can see the limbs are on the outside of the body proper, as are the ribs and skull; the inside surface consists of the alimentary tract and its organs; these latter may have grown far into the true interior of the body but they are nevertheless outgrowths of the inner surface, and belong to it; there is also the brain belonging mostly to the outside surface and the sympathetic system belonging to the inside surface. Besides these there is a certain series of glands, the glands of internal secretion. These, with the heart and blood vessels and lungs form the vital essentials of the body, the springs of life. These organs of internal secretion have to do mostly with the blood and general chemical equilibrium, as do the lungs also, so that they are functionally grouped together. These organs of secretion are in general reversible in their action, that is, they take up the substances when these are in excess and give them out when they are deficient.

Dr. Still has often said that the body manufactured its own medicines, and it was undoubtedly to the internal secretion that he had reference chiefly. We who have become acquainted with the remarkable qualities of that wonderful mind, and have seen the things that his methods have been able to accomplish, have believed him, and have practiced accordingly, and have all of us, I believe, verified his statements in our own practice.

Nevertheless, it is pleasant to be made to realize to what a great extent this is actually and demonstrably true, especially if it be through the work of the rival—if they will permit that word—the rival profession that this realization comes.

A doctor of the old school, Dr. Sajous, of Philadelphia, has verified most completely the statements of Dr. Still, upon which largely the practice of osteopathy is founded; and in his book he draws a picture of what in effect is a *physician within our bodies.* His book is *The Internal Secretions of the Ductless Glands and the Principles of Medicine.* As a result of his work, these glands, from being *terra-incognita* and of no practical importance, have suddenly sprung to a position of most intense illumination and of the greatest practical importance, in *all* diseases, in health as well as in diseases; and also are shown to be of great importance to the practice of osteopathy; for among other things Dr. Sajous shows that these glands are sensitive to mechanical stimulation; he does not say definitely that they are more sensitive, or more safely sensitive, to mechanical stimulation than they are to chemical stimulation, but from what he does say, I think that one may be justified in inferring it.

These glands are in effect a physician inside of our bodies, for the organs of internal secretion are grouped together functionally by nervous mechanisms into a single physiological entity of some magnitude whose function has to do with toxines and with emergency stimulation of the body in general. Let us first describe this mechanism before we attempt to comment upon it.

It consists of the pituitary body, the thyroid, parathyroid, and carotid glands, the spleen and pancreas, the supra-renal capsule, and the nervous mechanisms that connect these various glands.

The pituitary body, situated at the very top of the spinal column in the centre of the head, is the governing organ of the

mechanism. It was originally in early forms of life, an organ for the testing of the purity of sea water as the fish swam into it; but when animal life left the sea, and carried the sea with it inside of its skin, this organ very naturally became an organ for the testing of the purity of the blood and lymph. It has accordingly connected with it the nervous mechanism for controlling the secretions of the organs of internal secretion, which of course are poured into this internal sea; and for controlling more or less the organs of digestion which supply the materials and also the organs of elimination which cleanse this internal sea. It is, says Dr. Sajous, (note this well) an organ for the transforming of chemical into mechanical stimulants. In other words, it is necessary in the order of natural procedure, that is, according with nature's physiological methods, to transform chemical into mechanical stimulants, even in this very essentially chemical mechanism of the body. And as Dr. Sajous shows that medicines act primarily upon this mechanism in just that way in producing their effects upon the body, therefore you see how strong is the osteopathic position even in the words of our rivals of the medical profession. It is, if I am not mistaken, the medical college with which Dr. Sajous is connected which has sent representatives abroad for the purpose of studying drugless methods looking to the teaching in their schools of drugless healing.

The thyroid gland, saddled on the trachea just below the larynx, secretes the iodthyroidase, a substance which acts like glycerine on cotton (the two making gun cotton); it makes very much more inflammable and sensitive to nervous stimuli, all tissue that it touches. Its usefulness in disease can be easily seen. It joins the adrenoxidase to form the haemoglobin of the red corpuscles.

The spleen and pancreas are well known as digestive organs; Dr. Sajous shows that the spleen is an activating organ to the pancreas; that its secretion goes to the pancreas which without it would be nearly lacking in digestive power. The spleen in turn gets its inspiration from the suprarenal body. But these two organs, the spleen and pancreas, have an internal secretion which does in the blood stream just what it does in the intestine—it *digests* germs, toxins, foreign substances of all kinds. It is the internal secretion of trypsin that enables the body to digest foods injected subcutaneously and per rectum—or at least I have seen cases that seemed to justify that inference. Again you can see the immense value of these glands in diseases.

The supra-renal capsule is the important organ of this group, the *piece de resistance* of the mechanism. Its adrenoxidase is the most powerful reducing agent known. It goes with the iodothyridase to help form the haemoglobin, and there it is able to absorb 600 times its own bulk of oxygen. It is the ferment that Dr. Still has spoken of which absorbs the oxygen from the lung—a property of reducing substances. As many as ten years ago, to my knowledge, he ridiculed the osmosis doctrine and taught that the absorption of oxygen was due to a ferment. It is the primal ferment spoken of by many writers, the ferment of ferments which activates them all. It is the great stimulant to the heart and great vessels, and since it is carried in the blood stream first to the heart, therefore the heart has first lien on the prosperity of the body; is the first to come alive and the last to die. When the ferment is in excess, the blood is driven to the skin and the capillaries of the body, and all activities are hastened; when it is deficient the blood is squeezed out by the elasticity of the capillaries, and collects in the splanchnic and other internal vessels and we have cold extremities and diarrhoea and other results of the internal congestion, and low metabolism. It is of course the great combustion and metabolism agent, being the oxygen carrier, and by virtue of being the combustion agent is the fever producer. You

will remember the Old Doctor's "fever centre" at the eleventh and twelfth dorsal. By virtue of being the metabolism agent, it is concerned in Bright's disease and diabetes and other diseases of metabolism; and by virtue of being the metabolism and fever producer, it is the great germ fighter and toxin fighter. In short, it represents to the body what the flower and fruit represent to the plant, the storehouse of the excess of vital energy, accumulating there after the mechanical growth of the body is completed. When extensive growth was completed the inexhaustible vital energy turned to intensive work. Now when in the course of evolution it became necessary to increase the dynamic energy of any function, it was to this secretion that nature made appeal for the power wherewith to do so; so that this secretion became physiologically incorporated in practically every organ and function of the body, to which it is the great natural stimulant. Again you see its importance and potency in disease.

It is easy to see, therefore, why this with the other parts of the mechanism is called the physician of the body; because to this nature makes appeal when it is necessary to increase the fighting energy.

In connection with this Dr. Sarjous gives us more osteopathy. "The functions of the adrenals are actively enhanced by stimulation of the splanchnic nerve, and appear to be increased in the same way by poisons." He says, moreover, that "the functions of the adrenals appear to undergo over stimulation when a sufficiently active toxic is present in the blood, the result being either hemorrhage into the adrenals *per se* or inhibition of their function." Therein he confesses the danger of drug medication, and this seems an appropriate place to remark that the use of adrenalin and thyroid extract as an injection or administered through the stomach has been all but given up by the medical profession because of dangers attended with its use extrinsically, that is without the physiological cognizance of the body. If the body manufactures its own adrenalin it does so in harmony with its own needs. If it is injected, it is without the physiological cognizance, upsets the natural balance, and is a source of great danger.

In view of these statements and admissions, it is only necessary to perfect our knowledge of the centres governing the organs of this mechanism to obtain a control over the physician of the body and the physiological medicines he administers that will be of vastest value to us. For some time past I have been giving this matter the closest attention, and believe that I can now point to these centres with fair accuracy.

Let me say first that I regard general treatment as absolutely wasted; the treatment must be specific. General treatment does no more than raise the general tone, without changing in any essential way the relations in the nerve centres, which alone cause the change in physiological response.

In connection with the pituitary body, in pathological conditions involving it, appear in various forms of headache; soreness in the nerve lying in a groove on the back of the mastoid process, the posterior auricular—you will remember the Old Doctor referring to the cerumen and the canal of the ear in diphtheria, and also to a water maturing nerve at the transverse process of the atlas, in this connection—and besides this a disturbance of sensation, as tickling or crawling or more rarely a swelling, over the bridge of the nose. In the acute fevers, and such conditions as hay fever, severer manifestations appear at this point.

Next there is a relay of centres in the medulla; another group in the cervical cord, central about the third or fourth cervical, which appear to be connected with the thyroid and other glands and the mucosa in the neck. Here we may have neck ache and contractures, often swellings with neurotic affection of the

vocal chords; and in the acute fevers, inflammations of the pharyngeal mucosa.

In the neighborhood of the fourth dorsal are what appear to be the most important centres of this mechanism; you may remember how Dr. Guy Hulett and Dr. Hildreth and others used to be continually hammering on the importance of this fourth dorsal. These are in connection with the heart and doubtless with the spleen and pancreas and with the lungs also. These are the splanchnic nerves referred to by Dr. Sajous. In connection with these centres I have seldom found conscious pain, but have again and again found extreme soreness and phenomenal muscular contractures, sometimes exquisitely sensitive to pressure. In acute exanthemata and other toxic conditions, the bronchial and pulmonary inflammation is probably traceable to these nerves centres.

In connection with the suprarenal capsule there are nerve centres in the eleventh and twelfth dorsal segments. These are the most important centres from the osteopathic point of view, as the most immediate and striking results are obtained through them. Soreness is almost always apparent in the nerves of this segement, the soreness often extending as far around as the median line, following the ribs. The backache with which smallpox, chickenpox, typhoid, dengue fever, and other fevers have their onset is found to be in these nerves.

The relation of the genital organs with this mechanism is very close both through the nervous system and through the internal secretions themselves—of which the generative organs are possibly the chief users. The genital organs therefore are among the more frequent sources of abnormalities of function in this mechanism. In connection with this relation, soreness is frequently found at the second sacral foramen, and strange to relate, over the centre of the scalp at the sagittal suture.

These are diagnostic points, but they are also specific centres for treatment of the organs and the autoprotective mechanism as a whole. They may appear in part or altogether. The osteopathic philosophy is to treat the one found to be in excited action; however, I do not always confine myself to that, but treat centres that seem to be indicated and find that I get results in that way also.

When a patient presents such a group of osteopathic symptoms as this, we may safely assume that there is some disturbances of this mechanism and may then look for the classical symptoms of its abnormal action as described by Dr. Sajous. These have to do mostly with deficient or excessive action of the adrenal bodies.

A description of one typical case might give this picture with the greatest amount of clearness. This case is selected because it presents *fluctuation* of function, a condition that not infrequently arises, and because of the great variety of the symptoms very clearly represented.

A history of tuberculosis on the mother's side was obtained. The patient herself was single, forty-three years of age, gave a history of two attacks of typhoid fever followed by abscess on the liver in one case, and of two attacks of pneumonia. Menses did not begin until seventeen and had been irregular both as to frequency and quantity.

The present trouble became acute six years ago. During the time of deficiency we have the typical symptoms of adrenal insufficience:

Involuntary sighing, heart weak and dilated; cold extremities, sensations as of cold water sprayed over the skin; muscular action weakened, muscles relaxed; pupils dilated, sometimes contracted; mental apathy; pancreatic indigestion.

These symptoms were separated by normal intervals from periods in which occurred mental excitability, with globus hystericus; neuralgias, pain in the neck; grinding heart; muscular excitability, with contractures so great as at times to prevent walking, and under the influence of fright, so great as to produce complete rigidity (from which state music was able to bring her out). The skin was hot, intolerant of clothes or covers; the appetite was exaggerated and all the symptoms generally inverted. The feet swelled, the heels cracking open; and remained so even when the stage of insufficiency came, and it was, strange to say, this distant symptom that brought the case to take treatment; there appeared various

abnormalities of the epidermal tissues, skin, nails, teeth, hair, and lastly the patient would become alternately very thin and then very fat. Many other symptoms, such as a bad taste in the mouth in the mornings, were interesting but of no special value.

In this case the typical group of sore spots was present; 2nd sacral, twelfth and eleventh dorsal and ribs, second to fifth dorsal, third cervical, posterior auricular nerve, and the bridge of the nose over which there was swelling, with some pain and soreness occasionally over the top of the head.

Ten treatments in all were given to this case before the patient left for her home where she was to continue treatment. In those ten treatments results were obtained that were very satisfactory, but as many of the symptoms ran back as much as twenty years, it was not to be expected that a cure could be obtained in that time.

All of the symptoms are very rarely found in any one case, and the same thing holds good of the osteopathic diagnostic points. But the sore spots are as a rule sufficient to make a diagnosis clear.

To make this discussion as helpful as possible to the practitioner, we should discuss diseases specifically and show the action of this mechanism in each, and how the osteopathic treatment works in connection with it. But we can have time to discuss only two or three and that briefly. The physician will not have dealt long with this mechanism before he discovers that it is very sensitive to atmospheric conditions, for being the heat making agent, it is concerned with the temperature of the air, being the blood pressure controller it is concerned with the atmospheric pressure; and being the absorber of oxygen from the air, it is concerned in the humidity and altitude.

A cold is an abuse of this mechanism; and it will be observed that whatever part of the body be the part exposed, the cold always shows itself first in sneezing and in the inflammation of the membranes of the nose and throat—in relation with the centres of the pituitary body. A cold has three stages, head, throat and chest; rather clearly demarked and corresponding, so it would seem, to these three groups of centres.

The infective diseases all begin as colds, and they are identically the same thing as colds, that is, strains of this mechanism. They, too, begin in the head and progress downward, because the pituitary nerves are functionally the most sensitive nerves of this mechanism, with a descending course. We also find the three distinct stages, not always in the same disease, but yet often in the same disease; for instance, we have hay fever, diphtheria and pneumonia representing the three stages, but measles for instance, begins with a "cold in the head" which progresses downward, and may have serious complication at the lung. The same thing is true in lesser degree of all infections, even of hay fever and pneumonia.

The eruption of measles begins at the roots of the hair on the forehead as a rule and spreads downward; the same thing is true of all the eruptive diseases and for that matter eruption may appear in any infective disease—and has been known to appear in the attenuated form in colds.

Smallpox, chickenpox, dengue fever, typhoid fever, and other conditions and often severe colds—begin with lumbar pains which I have found to be at the supra-renal centres in all cases that I have examined. Lumbar pains may occur in severe attacks of the lighter infections.

The bacteriology of the acute infections is very uncertain and also the symptom pictures of the different so-called specific infections are verv uncertain, and emerge into each other. Their different features may be traced partly to difference of severity, partly to the excitation or inhibition of different parts of the mechanism. Unfortunately, I have not succeeeded far enough in my studies to have anything at all satisfactory to announce in this connection, but it is interesting to note that the symptoms of removal of the thyroid correspond with tetanus, and have a relation with whooping cough; that in measles and pneumonia certain symptoms strongly suggest an abnormality of the reducing ferment; that diphtheria evidently corresponds

with a great depression of adrenal secretion, etc.

The pathology of rheumatism corresponds with that of akromegaly and giantism in that it tends to affect the ends of the long bones, but the source of rheumatism proper appears to be chiefly the genital organs. There are very few virgins, for instance, over forty years of age, who escape rheumatism—as shown by the Heberden's nodes and other symptoms. Similarly, the secretions of gonorrhoea when suddenly checked and thrown back on the body, tend to cause gonorrhoeal rheumatism. The majority of cases of rheumatism in women develop after the menopause, these secretions being thrown back on the body. Doubtless the adrenalin is somewhat modified by its passage through these organs and in that state gives rise to rheumatism. The pituitary body is undoubtedly affected, but in my opinion secondarily.

So that my treatment for this condition, even in cases due evidently to exposure, (as in men working in and out of ice boxes) has been applied chiefly to the region between the 11th dorsal and the sacral nerves and results have been much expedited thereby.

But it is in acute Bright's disease that knowledge of these centres has been of most marked benefit. The etiology of Bright's disease presents a failure to oxidize the proteids of the body. This failure must, unless otherwise proven, be presumed to be due to failure of adrenal secretion. At any rate, a stimulation of adrenal secretion is plainly indicated. This is accomplished through the adrenal centre at the 11th and 12th dorsal segments.

In at least a score of cases handled by me in the last four months this treatment has brought most astonishing results. I have learned the advisability of having urinalysis made before a single treatment is given, for the albumin often completely disappears after the first treatment. None of these cases required more than five or six weeks' treatment; most of them much less. This result could not possibly have been due to accident, as it has been repeated too many times.

The work of Nature's Physician Within the Body is important in every condition of ill health, from the gravest to the slightest, and although it is most important in toxic and metabolic conditions, yet, I believe, that in even the simplest maladies its work at times becomes important and attention to it will bring rewards.

18 WEST 34TH ST.

Michigan Starts a Splendid Move

The Michigan state osteopathic association which held its regular annual meeting in Bay City October 8, set a precedent that should be followed by other centrally located states; that is, to hold their next annual meeting in Chicago at the same time and place that the A. O. A. meets. This is certainly a move in the right direction and Illinois, Iowa, Minnesota, Wisconsin, Indiana, Missouri, and perhaps Ohio, should all fall in line and hold their meetings at the A. O. A. meeting.

We would suggest that if enough of the states should hold their meeting in Chicago next year that the committee on arrangements prepare for them and that they hold their state meetings on Monday and we will open the A. O. A. convention on Tuesday. All of our central states should send an almost solid delegation to Chicago and if state meetings are held there in conjunction with the A. O. A. meeting it would certainly be a great incentive and inducement to all osteopathists to attend. Our Chicago meeting should be a record breaker, and it will be.

Look out for the announcement of our programme not later than January; our committees are already busy and Dr. McConnell has his programme well outlined and it is a hummer and one you cannot afford to miss.

A. G. HILDRETH, D. O., *Pres.*

Symposium on Spastic Conditions

Lectures and demonstrations before the Osteopatic Society of Greater New York
October 25, 1910

E. C. Link, D. O., Elizabeth. N. J.:

Since the subject assigned me is "Spastic Conditions" it shall be my endeavor to direct your attention to some points well known in the physiology and pathology of the nervous system in which spasticity is found, and I am at liberty to enter for discussion at least one type of disease in which this symptom is present.

I am of the opinion that most of us in our conversation relative to the nervous system are fond of likening the central nervous system to the electric power plant—the brain as the dynamo and the nerve fibers as the conducting wires. When the dynamo is out of order no power is generated. If the dynamo is in perfect order generating force, and the wires are made of non-conducting material, there will be no energy transmitted; or if the power is generated and the wires are made of good conducting material but a switch is turned off there will be no energy transmitted until the switch is turned on.

The simile holds good to a certain extent in the nervous system, for if there be harmony, normality, between the brain, spinal cord and peripheral nerves, normal functioning should exist, but when there occurs degeneration or sclerotic processes either in the brain, cord or peripheral nerves there will be noted impairment of function. The character of this deficiency is dependent upon the location and extent of the changes in the nervous structure. Generally speaking, there are two functions accorded to nerves: namely, that of conveying impulses to and from the centers in the brain—those fibers conveying impulses to the center are called afferent and those conveying impulses from the center to the periphery are called efferent nerves. The fibers of these two classes of neurons are in communication with the cells of the spinal cord and brain, travel in definite paths and pathological changes or irritatations in one set anywhere along its course from periphery to cortical center cause alteration in function and a definite symptomatology altogether different from that produced by changes in the other set of fibers.

Motor impulses are transmitted from the brain to the muscles by way of the motor neurons by two sets—an upper motor neuron and a lower motor neuron with which it is in communication and the character of the paralysis whether flaccid or spastic depends upon which neuron is affected. In spastic conditions the upper motor neuron is involved so that the normal inhibitory influence of the brain over the spinal motor reflexes is greatly impaired or lost. The spinal center being in a tonic condition and discharging motor impulses without inhibition from the higher center, keeps the muscles in a rigid spastic state and the reflex arc being intact and not inhibited by the higher center, the brain, there naturally follows an exaggeration of the reflexes when these are sought. There are a number of nervous diseases in which spasticity is a symptom and in each of them there is supposed to be a definite pathology—degeneration or sclerosis of the cortical motor cells, motor nuclei or degeneration or sclerosis of the motor fibers passing from these cells through the direct and crossed pyramidal tracts in the spinal cord to communicate with the motor nerve cells in the anterior horns of the spinal cord.

These changes occur as a result of quite a number of etiological factors—the various intoxications — lead, alcohol, syphilis, etc.—have been noted as causal

factors by bringing about arterial changes; inflammation of the meninges extending to the substance of the cord; thrombi and hemorrhage into the cord; exposure to wet and cold; direct pressure on the cord as a result of caries of the vertebrae; fracture-dislocation of the vertebrae and rarely by pressure of a tumor within the spinal canal.

Perhaps the greatest number of spastic cases presenting themselves to the osteopathic practitioner will give a history of injury to the spine. In some cases we find gross lesions such as fracture and fracture-dislocation of the spine; in others concussion without fracture and in others there have been apparently only slight injuries, jars, jolts, strains and torsions; in still others a history of some severe acute infection. In the traumatic cases there is present at first a myelitis and the paralysis involves the lower extremities, flaccid at first, and when the sclerotic or degenerative process is established the spastic features become apparent. Occasionally the cord lesion does not affect the entire cord transversely and spasticity of one limb results, and in hemiplegia the spasticity is noted in the muscles of arm and leg on paralyzed side. In traumatic cases the location of the cord lesion is fairly easy to determine for there is sensory as well as motor disturbance and the upper boundary of the sensory derangement corresponds to the upper level of the damage to the motor tract and the spinal lesion can be thus determined if not apparent to inspection or evident by palpation. In these traumatic cases, as intimated before, the injury sets up an inflammation in the meninges, extends to the cord itself and affects a greater or lesser area of the cord transversely, and hemorrhage into the cord will be followed by similar symptoms. At first the paralysis is of the flaccid type, the reflexes below the injury are lost and if the cord is severed they are forever lost. If the myelitis produced or the complications that develop, cysitis, nephritis, pneumonia, etc., do not prove fatal, the inflammation subsides leaving the patient with a damaged cord, in the paraplegic state, and if the cord is not entirely severed, stiffness of the muscles and exaggeration of the reflexes below the injury occur and the condition is known as Spastic Paraplegia. If the injury occur in the cervical region there will be paralysis of the upper as well as the lower extremities, and should the origin of the phrenic nerve be involved, death occurs quickly from respiratory failure.

If the pathological process is sclerotic, the myelin is destroyed and the axis cylinder may not be much changed and motor impulses are carried from the brain to the spinal center through a patch of sclerosis with considerable difficulty, and intelligent osteopathic work seems to have overcome this process in a marked degree. In secondary degeneration due to destruction of the cell body the nerve elements are replaced by connective tissue and regeneration is impossible though there is a possibility of treatment doing some good, for some neighboring nerve cells may not be destroyed but functionally inactive on account of circulatory changes or pressure from inflammatory products. In pressure upon the cord due to displacement of the vertebrae or inflammatory products at the site of injury there occurs degeneration downward beginning at or somewhat above the injury, and regeneration of the nerve fibers is possible when the pressure is removed and the inflammatory products are absorbed, and the experience of the osteopathic practitioner is that many cases considered hopeless under systems of treatment other than osteopathy and surgery, recover fully or are greatly benefited by a long course of osteopathic treatment.

In one of my cases a farmer, age 45, spastic paraplegia developed after a fall upon his back. There was no history of specific infection. There were both motor and sensory disturbance, loss of control of sphincters spasticity and extreme exaggeration of the patellar reflex. There was lesion at the 6th dorsal vertebra and lateral swerve from that point through the lumbar. He had taken about two years and a half medical treatment without benefit. No material change was noted for

five months under osteopathic treatment except a return of sensation, and with the return of sensation, pain became a prominent symptom on account of the extreme contraction of the leg muscles and the erector spinae. Patient ceased treatment after eight months and when seen one year later was apparently normal. He was able to carry on his farm work without further treatment of any kind, and when he last presented himself for examination there was only a very slight exaggeration of the patellar reflex.

Another case under my care for one month and under supervision in the A. S. O. clinic for about six months, showed marked lesion at the 8th and 9th dorsal vertebrae. Patient 21 years of age, fell from a tree. There was no fracture and the paraplegia was complete in a few hours after the fall. The symptoms noted at the end of four months of medical treatment were spasticity, exaggerated reflexes, etc. Patient was seen three years after discontinuing osteopathic treatment and was well and doing hard labor in a saw mill.

I want to present for your consideration one case diagnosed as Disseminated Sclerosis, under the care of Dr. G. M. Laughlin, for a time and later under the care of Dr. E. H. Laughlin. I cannot give an accurate history of his case but I do know that he was practically helpless when Dr. Laughlin began treating him. There were such symptoms as spasticity, exaggeration of the patellar reflex, intention tremor, scanning speech, nystagmus, etc. The patient improved steadily under treatment, going about on crutches, and I am sorry that I cannot tell you the outcome of the case. When I saw him last he was very enthusiastic and loud in his praises, for osteopathy had transformed him from utter helplessness to a condition where he could care for himself. Dr. E. H. Laughlin recently wrote to me concerning two spastic cases which recovered nicely—one was due to injury in the dorsal region and the other showed injury to the cervical portion of the cord below the origin of the pharnic nerve.

I know some one will say that the cases recited are exceptional ones, and I am frank to say that we have failed to relieve many cases, some during the acute stage, many during the chronic stage where the spinal cord was badly crushed or where the pressure upon the cord from inflammatory products or permanent callus formed in the repair of fractured vertebrae or ankylosis of the vertebrae made it impossible to remove the pressure, yet I observed happy results in one case operated upon by Dr. Geo. Still to relieve pressure that could not be relieved otherwise. I could also recite numerous other cases to show the value of osteopathy in relieving spastic conditions by removal of lesion and pressure upon the cord.

LITTLE'S DISEASE

There are two other types of nervous disease in which spasticity is present which I will mention briefly. The types are found in children. In one type known as Little's Disease there is a tardy development or non-development of the pyramidal tracts. The child is usually the first born, and birth is premature, labor frequently difficult and sometimes as in one of my cases, precipitate, and without doubt lesions were produced in the cervical and upper dorsal regions that prevented the tracts from developing. The child was three years of age when treatment began, was well nourished, could talk but little, was unable to sit up straight, could not hold the head up, was not epileptic, muscles of the arms and legs spastic and marked contractions in the flexars of the arms and legs and spasm of the adductions of the thighs so that when the child was placed upon his feet, he was on his toes and the knees were crossed. After thirteen months continuous treatment the child could walk some and on inquiry as to his present condition it was stated that he is able to walk quite well though clumsily and is in perfect health. I believe that further treatment would have been beneficial.

The other type is the small head, perhaps injured in instrumental delivery, some motional abnormality, infectious disease, intra-cranial hemorrhage, etc. They are epileptic, diplegic and spastic, and from my own experience and observation I have failed to see any improvement under any form of treatment.

TECHNIQUE IN FRACTURE OF SPINE

In conclusion, a few words as to the management during the acute stage of spinal injuries may not be amiss. If frac-

ture can be demonstrated or dislocation is present the patient should be placed on a smooth, hard mattress; there should be no springs, and heat should be applied to combat shock, but extreme care must be used not to burn the patient. Manipulation to reduce the lesion should be carefully given and surgical measures if necessary can be considered later. When necessary to move the patient the body must be rolled in such a way that the spine will not be twisted. An ice bag may be applied to the affected area of the spine. The position of the legs should be changed a little every hour. Bony prominences should be padded with cotton. If necessary, a sterile soft rubber catheter should be used and the utmost care should be employed to prevent cystitis, and should this complication arise the bladder should be irrigated with boric acid solution. The patient should be kept clean and dry, and should a bed sore develop it should be kept clean, dressed dry and pressure removed. The bowels should be moved by use of enemata. The diet should be light, nutritious and easily assimilable. Absence of fever and complications and early return of sensation are good indications.

The treatment to cure in chronic cases must be directed to removal of the bony lesion, to restore the circulation to the spinal cord, and to remove pressure upon the cord and to assist in the absorption of the inflammatory products.

517 N. BROAD ST.

Arthur S. Bean, D. O., Brooklyn, N. Y.:

Dr. Link has called our attention to the fact that these "spastic conditions result from a degeneration or sclerosis of the cortical motor cells, motor nucleii, or a degeneration or sclerosis of the motor fibers passing from the cells through the crossed and direct pyramidal tracts in the spinal cord to communicate with the motor nerve cells in the anterior horn of the spinal cord."

I desire, if possible, to bring out more clearly just what takes place in the cord when it degenerates or scleroses. Let us keep in mind that, in the simplest form, the entire nervous system is really an aggregation of neurons, that each neuron consists of a cell-body and a series of processes, the dendrites and axis-cylinder with its collaterals. The dendrites are usually numerous, relatively short and terminate in free extremities. The axon, formerly the nerve fiber, is usually long, has collaterals at right angles and terminates in an end-brush which intermingles but does not anastomose with the dendrites of the neuron to which it carries impulses. The cell-body is trophic for its processes.

Let us also bear in mind that all cortical motor impulses must pass through at least two sets of neurons in their passage from the cortical area to the muscle fibers. One, the upper motor neuron, passes from the cortical cell bodies to the cells in the anterior horn of the spinal cord, its end-brush intermingling and transferring impulses to the latter. Degeneration in this upper neuron is shown through the lower by the increased reflex of the knee and the rigidity of the muscles.

The other, the lower motor neuron, passes by way of the peripheral nerve from the anterior horn of the spinal cord and terminates in an end-organ in the muscle fiber. Degeneration in this lower motor neuron is shown by the lost knee-reflex, atrophy and flaccidity.

In a broad sense then we can think of the spinal cord as a collection of these neurons, some white and some grey. The white ones are arranged in bundles or tracts on the outside of the cord beneath the coverings of the cord. Within and entirely surrounded by the white, lies the grey matter of the cord somewhat resembling the letter "H" in form. These tracts of the white matter named Goll, Burdach, Direct Cereballar, Gower's and the Lateral Ground Bundle and these are generally ascending tracts while the Direct and Crossed Pyramidal are descending tracts.

With this general statement of the anatomy of the cord in mind we can say that the cord in its simplest division, both the white and grey parts, is composed of medullated nerve-fibers, nerve-cells, blood vessels and neuroglia tissue with its glia-cells. As another puts it, it is composed of true nervous elements, the nerve cells and nerve fibers, and the supporting tissue, the neuroglia. While a part of the cord, the neuroglia has no part in the nervous functioning of the cord.

Medullated nerves are, as the word implies, covered with a medullated sheath of soft substance, fatty in nature, which encircles the axis-cylinder; this, in turn, being surrounded by the primitive sheath (the nucleated sheath of Schwann), which is a tough homogeneous membrane. This membrane is continuous except the regular interruptions at the nodes of Ranvier. Chemically the nerve is 68 per cent. water and 32 per cent. solids such as proteids (8 per cent.), cholestrin (16 per cent.), lecithin 3 per cent.), cerebin (3 per cent.), salts (.5 per cent.), and other substances (1.5 per cent.) The reaction is either neutral or slightly alkaline.

A nerve cell is a mass of protoplasm containing a large neucleus within which lies a well-marked, highly refractive nucleolus. We have already spoken of its dendrites and axones. Chemically it is made up of carbon (51 per cent.), hydrogen (about 8 per cent.), nitrogen (about 16 per cent.), oxygen (about 22 per cent.) and sulphur (about 2 per cent.)

The neuroglia tissue forms the basis of the supporting framework of the nervous tissue of the cerebro spinal axis. It consists of peculiar cells, glia-cells, having many branching processes and a network of very fine fibrillae. The fibers are radially disposed and start from the fixed ends of the ciliated epithelium-cells which line the central canal of the cord and pass in a radial direction slightly diverging as they proceed, and constantly branching, towards the surface of the cord where they end in slight enlargements attached to the pia mater. The glia-cells, stellate-shaped, extend their fine processes between the nerve-fibers and nerve-cells and aid in supporting them.

I have given this much very briefly that we may have the cord anatomy clearly in mind in its simplest form to see more clearly just what really happens in the cord in a degenerative condition and how it differs from a sclerosed condition. We see the wasted muscles, we notice the lost knee-reflex, but what really has taken place in the spinal cord?

A degeneration implies that the cellular elements of an organ are undergoing, or have undergone, such changes both chemic and structural as to preclude their maintenance of function; it implies that the cell including its chemic and physical elements has undergone important nutritive changes which may be independent of any extraneous material brought to the organ involved. What then has happened to the medullated nerve? First—there is a swelling of the axis-cylinder, really a fatty degeneration, and its contents break up into detached pieces. This process is known as fragmentation. Second—the medullary sheath separates into clumps and droplets of myelin. Third—the nucleii under the neurilemma proliferate and insinuate themselves between the fragments of the medullary sheath and the axis-cylinder. Fourth—distinction is lost between the axis-cylinder and the myelin sheath leaving the nerve-fiber a sort of mummy of connective tissue, the myelin having been carried away by the phagocytes, but the neurilemma with its numerous nucleii can still be seen. Chemically the only difference between the dead and living nerve is in the reaction which is neutral or slightly alkaline in the living nerve and acid in the dead tissue.

There seems to be little change in the neuroglia tissue comparatively. The glia-cells become somewhat swollen and increase in numbers, the neuroglia fibers also increase.

Again, what changes take place in the

nerve-cell itself? In extreme fatigue there are well marked changes. First—there is marked decrease in the size of the nucleus with a jagged, irregular outline and a loss of the open reticular appearance. Second—there is slight shrinkage in size of the protoplasm with vacuolation. Third—there is a decrease in the size of the nucleii, but the cells recover their normal size if allowed to rest. In postmortem changes there is at first a swelling of the cells followed by gradual loss in staining power of the chromophilic bodies and large vacuoles appear in the protoplasm. Later the protoplasmic processes break off and the cell assumes an irregular outline. The nucleus also swells, its outlines become blurred and may become dislodged and pass to one end of the cell, disappearing entirely later. The nucleolus finally swells, breaks up and disappears. In diseased conditions we probably have somewhat the same conditions as are here briefly described in these two conditions, at any rate, in the degenerate cell find under the microscope that it would generally appear as a rounded body with the protoplasm colorless or faintly stained and the nucleus eccentrically placed. It is difficult perhaps to state just the changes that are present in all the different stages, but these observations with the above description of the degenerated cell may give us some idea of what really happens when the cell degenerates.

But how do these processes differ from a sclerosis? Sclerosis comes from a Greek word which means hard, and so pathologically it is a hardening of a part from an overgrowth of fibrous tissue applied particularly to the hardening of the nervous tissue from atrophy or degeneration of the nerve elements and a hyperplasia of the interstitial tissue. Under the microscope the sclerosed area is found to be composed of hypertrophic or hyperplastic neuroglia fibers and the neuroglia cells are greatly increased. The nerve elements are more or less degenerated as shown by the destroyed myelin sheath, but contrary to what we should expect, the axis-cylinders do not as a rule exhibit marked alterations. Compound granule bodies are often found in the sclerosed areas and other bodies known as the corpora amylacea. These are rounded or oval bodies, generally somewhat larger than nerve cells, containing no nucleii. The principle difference between the degeneration and a sclerosis is that in the latter condition we have the overgrown neuroglia tissue, which in turn shuts off nutrition to the nerve elements proper and hastens the degenerative process, and the lessened degeneration of the axis-cylinder as compared with the other degeneration under discussion.

34 JEFFERSON ARMS.

[EDITOR'S NOTE: In conjunction with the two above given lectures and discussions, Dr. Benj. F. Still, of Elizabeth, N. J., presented as clinic a man aged about fifty years with a most interesting history who had been treated with happy results.

Several years ago the man noticed that he began to lose the use of his legs and later of his hands, and subsequently his mental condition was much impaired. Under the best medical treatment and sanitarium methods his disability steadily progressed until he came under osteopathic treatment. Improvement almost to point of entire removal of all former symptoms had been secured.

The conditions and symptoms described by Dr. Still were those of Spastic Paraphlegia of a markedly progressive nature. At this time the man is practically normal and his general health excellent. The results obtained by this treatment in such an advanced and pronounced condition were warmly applauded by the practicians present.]

The Future of the Research Institute

C. M. TURNER HULETT, D. O., CLEVELAND, O.

A letter came to me the other day containing a check for the endownment fund and the writer said: "I am not a subscriber but I want to do something for this work. The San Francisco meeting subscribed over $8,000.00. Such pointers as these indicate the steadfast purpose of the profession in this matter. Some of us get impatient sometimes. We want to see the wheels go round. We are entirely willing to subscribe on a five year paying period, but we inconsistently don't want to wait five years for the results our money is to produce. What we started for at Put-In-Bay is working out in the only way we could reasonably expect. It is an unavoidable condition in a movement of this kind that the wait of those who start it is longer than that of those who come in later, but where would our profession land if we all made a selfish application of this principle and all waited for someone else to make a start.

We must all recognize that while on the clinical side of osteopathy we have made good, on the scientific side we have done nothing. I mean as a profession we have done nothing. We have, undeservedly, been saved from complete mediocrity by a few rare spirits who have literally given themselves to save us from ourselves. Not only have they given of their money, time, and brain, but they have allowed the Research Institute to credit by their work, because they had faith that the profession would carry this movement to a final success, and were willing to help toward that success. Bulletin No. 1 represents something of the sacrifice they are making for us. It is true that the work represented by this bulletin is more complete because of the assistance which the Council has been able to give, but that assistance has been much less than it should have been, because of unpaid installments on subscriptions. The profession is benefiting by this work, and the least we can do is to devote a little of the money that osteopathy is putting into our hands to show our appreciation of that benefit. It is a shame to us to accept the benefits of this work and not show our appreciation of it, and it would be poor business not to make the most of the opportunity to enlarge the work and the corresponding benefits.

We can make amends for past remissness by making good on our word. The crux of this matter is the subscriber who is in arrears without good cause. If he regards his obligation given on honor; if he wants to show a little genuine human appreciation; if he wants to assure a speedy and permanent establishing of the profession's part in this work, he will come up with those back installments next December. The Finance Committee have not been very insistent on prompt payments during the accumulating stage. Several lately have sent in checks for two, three, or four installments, closing their accounts. Others have signified their intention of doing the same thing, and we believe there are many more of the same mind. But those who make no sign will hear from the committee.

The waiting period in the endowment movement should now become history. The "future" of the Institute is near at hand. $85,000.00 in round numbers is now subscribed. That would produce an income of over $5,000.00 a year, and a lot of research work could be done with that sum assured every year. Seventy per cent. of the subscriptions is due next December, and ninety per cent. will be

due in December, 1911. We are just at the point of the realization of our hopes in the one thing which is of more vital importance to the profession than anything now before it. The trustees must soon provide a habitation for the Institute, and for a larger, systematic development of the work. To do that they must have the money due on subscriptions. It is the duty of the Finance Committee to make the collections. So, if any subscriber, in arrears, gets more intimate letters than in the past regarding his subscription, he will know that the committee is only trying to do its duty.

NEW ENGLAND BLDG.

A Broader Education for Osteopathic Physicians

Continued from November Number

Osteopathic physicians are scientists just as well as physicians of other schools, but it is the duty of the college to establish the profession on a permanent basis and put it in a position where other schools of medicine will be forced to acknowledge it as a real science, and accord it equal standing in educational and scientific circles with their own.

WHAT SHALL COMPOSE THE FOUR-YEAR CURRICULUM?

As I stated in the beginning, to lengthen the college course does not necessarily mean to include a large aggregate of non-essential subjects. The actual truth of the matter is that with the growth of our educational experience and with the development of our methods of teaching, the natural desire of the colleges to give a more complete education has congested our curriculum. In other words, three years is not sufficient length of time to teach the subjects we are now attempting to teach. In addition to this, it is our duty as teachers of future physicians to present to them every available method of examination for the purpose of diagnosis which we may. By this I do not necessarily mean the diagnosis through symptomatology, but a knowledge of disease which will enable the graduate to diagnose according to the literal interpretation of the word, which means, to know through and through. The average osteopathist knows that extreme care should be taken in the treatment of a case of arteriosclerosis. If the use of the sphygmomanometer will render it possible for him to diagnose that condition when he might otherwise fail, should the student not learn to use it? In those diseases which are characterized by deterioration of the secretions or excretions an analysis of these is necessary. Shall the student not be perfected in such analysis by proper laboratory study? It is a common statement among osteopathists that if no lesion was found in the treatment of a case, it was because the osteopathist did not properly diagnose it. Is it right or proper to allow our graduates to go into the field without proper training in Diagnosis and Technique? We are teaching all of these subjects to-day, but we are attempting to give them in too short a time. The curriculum of the four-year course then, according to my interpretation of the needs of the profession, should consist primarily in the extension of time in the consideration principally of the subjects already taught, with a view to give the student more time to thoroughly master them, and the college more time to completely demonstrate them. In addition to this, there is of course added increased opportunity for clinical observation of disease, therapeutic method, and time for giving the student the basis of a surgical education if he so desires. In making up our proposed curriculum for the four-

year course, we have had no precedent to follow. We could not elaborate the curriculum in conformity to the medical standard, since that will not meet the purpose which we have in view. Since this is the first osteopathic school presenting such a curriculum, there was no osteopathic standard by which we could go. As outlined in our catalog it exemplifies our views of what is needed in addition to the subjects now presented in the three-year course. A study of this curriculum will show that while there has been added eight months to the college course, each week consisting of thirty hours of work, of these thirty hours, eighty per cent. is devoted to the consideration of the subjects entirely from an osteopathic viewpoint.

There are three hourse of Clinical Osteopathy; one hour of Physical Diagnosis; two hours of Osteopathic Technique; ten hours of Clinical Practice; two hours of Osteopathic Therapeutics; two hourse of Gynecology; one hour of Gynecological Clinic; one hour of Obstetrics; one hour of Mental Diseases; one hour of Orthopaedics. The balance of the time, six hours per week, to be devoted as follows: One hour of Medical Jurisprudence; one hour of public Hygiene and Sanitary Chemistry; two hours of Surgery Lectures; one hour of Surgery Clinic; one hour of Diseases of Eye, Ear, Nose and Throat.

It is not the intention of the college in presenting a course in surgery, to attempt to make of the osteopathic graduate a specialist in surgery. Even in the four years devoted to the course as outlined that would be impossible. The graduate of a medical course who has attended four years, is not a surgeon. If he wishes to specialize in that branch, he enters some hospital and spends one or two more years, sometimes three or four, specializing on his chosen work. It is our object, however, to give the student the fundamental basis upon which he can specialize in that subject, if he so wishes. The practice of surgery is not opposed to the practice of osteopathy; it is indiscriminate use of the knife which is to be decried. It is more important to teach the student surgical diagnosis, so that he shall thoroughly understand when *not* to operate, than it is to teach him to operate. Writing on this subject:

DR. GOETZ: The relation of surgery to an education should be always as in every department, *that which should thoroughly equip us as physicians.* Stand always for the "Higher" Education of the osteopathist and we can not go wrong.

DR. MCCURDY: Teach a complete course in Major Surgery; equip our graduates in this respect equal to his M. D. brother.

DR. PERRIN: In regard to surgery and its relation to the curriculum of a four-year course, would say that I believe that osteopathy, antiseptics and surgery go hand in hand, and it should be taught thoroughly and efficiently in the up-to-date osteopathic schools.

DR. WILLARD: I think we should try to prevent a stampede toward surgery by giving a conservative course in operative surgery, and by broadening out upon the field of osteopathy rather than surgery.

DR. MCCONNELL: Surgical diagnosis and minor surgery should be thoroughly taught But operative surgery should occupy but little time in the course. No schools, whether giving a four-year or five-year course, can turn out a full fledged surgeon for major work. Let the student see a few operations and become generally familiar with such work, but let the final year be largely a clinical one from an osteopathic standpoint.

DR. LOUDON: The surgical course should embrace practically all fourth year.

DR. HAZZARD: Operative surgery should be taught.

DR. O. J. SNYDER: In a four-year course a fairly reasonable time may and can be allotted to surgery. The student should be given sufficient training to enable him to perform the simpler operations. Post-graduate work is required for such training in surgery as will qualify one for the more complicated and difficult surgical endeavors.

DR. FERGUSON: Surgery should be taught in my opinion, in the junior and senior terms; minor surgery in the junior, and major surgery in the senior term.

DR. E. R. BOOTH: Surgery itself should require a year with abundant facilities for practice. Teaching surgery without practice in the use of the necessary tools in a variety of operations is a farce. We have ten times too many surgeons of that kind now.

DR. HARRISON MCMAINS: I haven't much

use for surgery. I realize the necessity of it at times; personally, I do not feel embarrassed at the lack of my knowledge of surgery. In the field in which I happen to be located I find no difficulty in getting what little surgical work I need done by a competent man; I realize that this cannot be done in many places, however, and it is therefore necessary for our colleges to give a thorough course in surgery, in order to meet the present and future demands.

DR. C. C. TEALL: My ideas are unchanged on the subject of surgery. I believe it to be a separate science and should be kept so as it is in England. In reality it is in practice for the surgeon does not prescribe. We have no trouble getting our operations performed and by the best men, same as other practitioners of medicine who, as a rule, do no more than ordinary minor work. Teach surgical diagnosis. Teach how to determine when operation is needed, and better still how to avoid it. Here, again, comes this object of too rapid development. Surgery will come in due time but all our effort now should be to develop OSTEOPATHY.

DR. S. A. ELLIS: Your question in reference to surgery is an interesting one and a point to which I have given a good deal of thought. Personally, I am not enthusiastic over the osteopathic surgeon; I think all of our practitioners for a good many years to come can give much better service for themselves and for the cause if they stick as close as possible to the practice of osteopathy proper.

DR. HILDRETH: Relation of surgery to the four-year course, should be to qualify practitioners just as thoroughly as surgeons are qualified in any medical college on earth, and better still because they should have thorough osteopathic training with it, that is, taught the value of the osteopathic treatment to save surgery and then use it. Then we should grant no osteopathic surgical degree to any graduate of ours until they had an added three or even five years hospital experience in order to become practical as well as technical.

DR. E. M. DOWNING: Conservative surgery, thoroughly taught from a distinctly osteopathic viewpoint, should be a prominent feature of the course.

SHOULD ANOTHER DEGREE BE GRANTED UPON COMPLETION OF THE FOURTH YEAR?

(a) D. O. Degree should be sufficient. This question of another degree has engaged the attention of the profession widely for over a year and with reason. There is no question of policy before us to-day which is frought with so much menace to us as a school of therapeutics as this one. It is one which vitally concerns us all. It is my belief, and that of the Trustees of Philadelphia College, that the day on which this association countenances the osteopathic colleges in granting the degree M. D., will mark the dealing of a death blow to our profession, and its death knell will be sounded. I am not here to question the motives of those who have advocated this policy, but to sound a warning. Where any number of people are thinking there is of necessity difference of opinion, and I respect their motives and opinions because I believe they are honestly endeavoring to better conditions. But however honest the motive, if the policy advocated is wrong and a menace to us it must not be countenanced. I have read the arguments for granting this degree, and I have yet to read or hear one which has any reason in it. The degree D. O. can be made, and should be made, to represent the very highest type of education in the healing art. It is a matter of educating the public, and it would take us much longer to make the public understand that an M. D. osteopathist was a good doctor, than it will to educate them to understand what we do as osteopathists. To grant the degree D. O. at the end of the third year and M. D. at the end of the fourth year, would place osteopathy in a very inferior position and convey the impression that it is not a complete science.

I am fully convinced that there is no policy in which we as a profession could adopt which would as quickly lead to the absorption of osteopathy by the medical profession and the complete loss of our identity as a school of healing art. We all know that the medical profession is devoting every effort to this end. Their model board bill is for that purpose alone; all their arguments are to that end; their proposed National Department of Health with its head a mem-

ber of the President's Cabinet as Secretary of the department, is for that purpose alone. The establishment in their schools of chairs so-called "Physiological or Non-drug Therapeutic Methods," is for the purpose of ostensibly teaching osteopathy under another name. Now, if we proceed to grant the M. D. degree we but add fuel to their fire. Why may not they proceed to also grant the degree of D. O.? Then where shall we draw the line of distinction between the osteopathic M. D. and the medical D. O.?

An osteopathic college granting the degree M. D. *would be a collegiate phenomenon.* It would not be recognized by the osteopathic profession, and most assuredly not by the medical profession. The graduate would be neither an osteopathist nor a medical doctor. No osteopathic M. D. is eligible for licensure examinations conducted by State Osteopathic examining boards, therefore he could not be licensed by them. He would not be admitted to the examinations conducted by State Medical examining boards and therefore could not practice under their licensure.

The osteopathic M. D. would not be given membership in any medical society, nor in any osteopathic society of any standing. He could not consult with members of either profession. Therefore, he would be an outcast, legally, socially, and professionally. He would be placed in that nondescript class of chiroproctors, neuropaths, naturopaths, mecinotherapists, electrotherapists, etc. Does any one of us desire to shoulder the profession with this burden again after it has labored all these years to create a social, legal and professional standard?

In conversation with one of the most prominent medical doctors of Philadelphia, Dr. Charles J. Muttart, was told by him that the greatest objection which the majority of the medical profession has to osteopathy is the fact that the schools and colleges instituted by so many of the so-called schools of the healing art, ultimately degenerate into cheap, second-rate medical schools, and they fully expect osteopathy to follow this precedent of history. There is only one way to prevent this, and that is by maintaining our identity as a therapeutic school. The moment we decide to grant the medical degree, the entering wedge has been introduced which will ultimately bring about this very condition. Those of us who have the good of the profession at heart do not want our schools to be known as medical schools. It should be always emphasized that when a student enters an Osteopathic College he goes there to obtain something which he can not get in a medical school.

The medical degree is not a *financial aid,* either to the osteopathist holding it, or to the college of osteopathy. Percy H. Woodall, M. D., D. O., in the July number of the A. O. A. JOURNAL, says:

> To those who urge the granting of the medical degree it should only be necessary to remind them that sick people seek the osteopath for the very great reason that they have already tried all of the methods which medicine has to offer them. People to-day go to an osteopath because he is one and because they want osteopathy, not medicine.

Those schools which would grant the medical degree because they think it will attract students, commit the greatest blunder of all. A moment's consideration will convince any thinking man that students wishing a medical education will seek a medical school of reputation, and not an osteopathic school, however high its reputation in that particular, which grants a second rate medical degree. On the other hand, those who contemplate the study of osteopathy will not be attracted by the inducement of a medical degree. They wish to be osteopathists. To such an individual the very inducement offered would evidence a scholastic weakness, indicating either that the osteopathic course offered was not sufficiently comprehensive or that the management of the institution was such that subterfuge was found necessary to obtain students.

While commercialism both in school and practitioner is to be decried, yet a

financial return commensurate with the service offered is a rule always to be followed. Financially, I would consider the D. O. degree a far greater asset than the medical degree, both for the practician and for the institution which confers it.

THE REMEDY

(1)—Extend the curriculum and incorporate in it sufficient to make the D. O. degree actually stand for the very highest type of education in the healing art.

(2)—Change the laws regulating the practice of osteopathy. All the laws passed in the future should require a preliminary education equivalent to a four-year high school course; should require a minimum college attendance of four terms in four separate years, and should enlarge the scope of osteopathic privilege to the extent of allowing him to practice surgery, mid-wifery, administer anaesthetics, antiseptics, antidotes, attend contagious and infectious diseases, and sign birth, death and health certificates. All laws at present in operation which do not contain these provisions should be so amended. Our Pennsylvania law, which I consider the best law in the United States, not only preserves our identity by a separate examining board, and makes these preliminary and collegiate requirements, but it is also stated in the law that "this license shall entitle the holder thereof to practice osteopathy as taught in the reputable osteopathic colleges," and grants the extended rights enumerated above. With this clause in an osteopathic law the necessity for any further degrees for the practician is entirely removed. We teach obstetrics, therefore the osteopathist can practice it. We teach toxicology, minor and major surgery, the use of anesthetics, antiseptics, antidotes, the treatment of contagious and infectious diseases, hence the osteopathist practices them all if he so wishes.

(3)—Finally, comes the third remedy, the education of the public to a knowledge of the value of the D. O. degree. This remedy is one which can not be administered in a day, a week, a year or ten years. Teaching the public is a slow process at best, because it is a process largely of evolution. It can only be accomplished by patient, intelligently directed precept. To do these things, and thus prove one's capability is the surest method of educating the people. Results are of greatest value. The man who knows *how to do* is the one who teaches best. Teaching the public does not consist so much in blatantly proclaiming that we can do so and so, but in preparing ourselves to do it. When the osteopathic colleges actually prepare their graduates to competently advise in every crisis, the education of the public will be half accomplished, since these graduates will immediately begin to demonstrate their ability. To be prepared is half the problem for the physician; to properly prepare the student is the problem and duty of the college. It is my earnest belief that the addition of the fourth year will do very much to solve this problem. For that reason we not only advise it but require it, believing that every man should practice what he preaches.

THE FLANDERS PROFESSIONAL BLDG.

Publisher's Page

LEGISLATIVE NUMBER

It is thought advisable to devote the December issue of the JOURNAL to a consideration of legislative questions exclusively. Every practitioner needs to be thoroughly posted on our legislative status and our position on this important question. Every practitioner should be able to discuss intelligently what has been done for osteopathy by the several states, and what osteopathy needs from the state in the way of legislation.

Lay people interested in osteopathy as a system of therapeutics and as a reforma-

tory force should be informed of what has been accomplished along this line and what is still wanting accomplishment. Members of legislatures, state and national need information on this subject.

It is proposed that this legislative number shall fill this need. The dozen or more articles which will compose it will be pointed and readable, and will be instructive both to practitioners and layman.

Legislative committees in the several states where legislation is probable should arrange with the JOURNAL in advance for extra copies for members of legislature and infiuential friends.

THE CONVENTION OF 1911

Even before President Hildreth left San Francisco he was hard at work for the interests of the A. O. A. for the coming year. Every one is aware that no one is more imbued with, or has greater reverence for, the spirit of osteopathic progress than he. Early in September he laid the lines that are rapidly perfecting the plans for a successful meeting during the last week of next July.

Both the Illinois State and the Chicago societies have entered most enthusiastically to make the convention an assured success. Dr. J. R. McDougal, chairman of the arrangements committee, and his co-workers have already spent considerable time in arranging plans to take care of our visitors. The Chicago Commercial Association which represents several thousand business men is doing all in its power to lend a helping hand. The Hotel La Salle will be headquarters.

The program is well under way. Tuesday to Friday inclusive will be given over to the program, we believe, of solid scientific and practical worth. It will be essentially for the practitioner. Papers and business in the forenoon and clinics in the afternoon. There will be several features of special interest to all osteopaths. Morning sessions from nine to twelve-thirty, and the afternoon from two-thirty to five, with time for general discussion of presented topics. The research work, reunions, and the banquet will not be neglected. In a short time a detailed outline of the program will be presented to JOURNAL readers.

CARL P. MCCONNELL, D. O.,
Chairman Program Committee.

DELAYS

The strike, tying up all the great Express Companies of New York for the past three weeks, and consequent inability of the companies to deliver matter sent through New York, has made it impossible for us to receive and hence to deliver to our members either Certificates of Membership or the Membership Directories and Bulletins of the Research Institute.

As the JOURNAL goes to press, the belief is expressed that the difficulty will soon be adjusted, and it is hoped that our matter will be delivered, in which event we will rush it to our waiting members as speedily as possible.

PRIZE ESSAY CONTEST

While the conditions under which the 1911 Contest will be conducted have not been announced, the contest will be open to all members of the association, and his subject will be left open to the selection of each contestant for himself.

In the 1910 contest, eight essays were presented. Let us have twenty-five in this year's contest. The prize is fifty dollars for the essay judged the best by an impartial committee.

Begin now to prepare for the contest.

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Death Rates in the U. S.

Census Bulletin number 108 gives some interesting figures on mortality during the year 1909. The registration area covers a little over 55 per cent. of the country, and in this area, there were reported 732,538 deaths for 1909, as compared with 691,574 for 1908. The rate per 100,000 was fifteen, while the rate of England and Wales for this time was fourteen and a half. This is the lowest rate that has been reported in this country, yet if the other part of the population maintained this rate, the deaths in the United States during 1909 would be 1,325,000.

About 55 per cent. of the deaths are males. Of infants, under one year of age, in the area reported, 140,000 and of the old post ninety five, 1,650 succumbed. In most of the eighteen states from which these figures are taken, March is the month of greatest mortality, and June the lowest, though the difference is small.

The cause of death as reported is given herewith in full, as it is most interesting:

Disease.	1908.	1909.
Tuberculosis	78,289	81,720
Pneumonia and broncho-pneumonia	61,259	70,033
Heart disease	60,038	65,971
Intestinal inflammation (other than typhoid)	52,213	52,516
Bright's disease (and nephritis)	43,835	48,430
Cancer	33,465	37,562
Apoplexy	32,467	36,463
Bronchitis	12,132	12,127
Typhoid fever	11,375	10,722
Diphtheria and croup	10,052	10,358
Infantile paralysis	—	569
Suicide	8,332	8,402

From this it would appear that tuberculosis is practically at a standstill or losing ground, and pneumonia, steadily gaining (gain of almost eight persons per 100,000 of population in one year), has almost overtaken the Great White Plague as a cause of human death. When the chronic, long drawn out character of the one is compared with the other largely crowded into three or four months of the year, this increase and the total death from pneumonia is frightful. If the established orthodox treatment is unavailing, and no other will be accepted, it would seem that attention would be given by investigators into the habits and manner of life of communities most affected and see if any reformation there will be effective.

If the cases of heart disease and apoplexy are combined and nephritis, the chronic form of which may well be classified under the same head, we have from

heart and arterial disease the enormous death list of 151,000 in a little over one-half of the population of the United States, and an increase over 1908 of almost 15,000. According to this, the deaths from heart and arterial disease about double that of tuberculosis or equal the mortality of tuberculosis and pneumonia combined. Study into the cause and prevention of arterial disease should be profitable. It is striking again as this character of disease, heart and arterial trouble, is largely a disease of middle life and old age. Tuberculosis, to offset this, is more largely of youth and young adult life. The decrease in death from intestinal troubles is no doubt due to more care of the milk supply in the large cities.

The net results seem to be that diseases known to be transmissible, where the means of communication can be controlled, are being held in check or are on the decrease. That is to say, certain preventive measures seem to be succeeding, but *treatment* is more ineffective than ever.

"Vaccination Halted"

Under this caption in big headlines, the St. Louis *Globe Democrat,* of October 19, printed an item that is suggestive. The reader will note that while putting the blame for these fatalities on the child or on the parents, the physicians will use no more of that supply of virus. But let us grant that the physicians are right, and the fault was not in the virus, if the country is getting that filled with tetanus bacilli that the infection has become so common, is it not about time to quit making these ugly sores in healthy, promising children under force of law in order that they may escape a disease that practically does not exist in this country to-day. Last year there were about seventy-five deaths from smallpox reported. Beyond doubt there were more than this number of fatalities following vaccination.

We are not discussing the question of vaccination as a prophylactic measure in exposure to the disease. That is a matter for each to decide when that exigency may arise; what we are discussing is the right to compel people regardless of their belief in the efficiency of the remedy, to submit their bodies to this torture and danger or forfeit other privileges guaranteed to them, when smallpox may not have been in the community for a generation. How long will people submit to surrender up their bodies or the bodies of their children to a clique of medical enthusiasts when the wrecks of their exploded theories and discarded fads leave a clear trail through the past centuries?

In crowded, filthy settlements, or in certain conditions in the army, it may be admissible; we are not passing on those questions; but in the larger part of this country the habits of life and the hygienic conditions are such as to make this filth-bred disease impossible. In most sections of the country now, no one believes that he or his children are in danger from smallpox, but most intelligent people do believe they are in much danger from vaccination.

It is one thing—and a thing every one should approve of and aid—to safeguard the community against smallpox or any other communicable disease being brought into the country or community, or when it breaks out, to isolate and prevent communication; but it is quite another thing to use law as a means of forcing people against their conscience and against their judgment from having a disease created within their bodies, forsooth, to prevent them from having a disease, which practically does not exist.

Here is the St. Louis situation:

Death, following a compulsory public school vaccination by a physician of the St. Louis

Board of Health claimed a second victim within a week when William Kuntz, seven years old, 7819 Water street, died of tetanus late Monday night. The first victim was Roy Schuster, seven years old, 1218 Pine street, who died a few days ago from an injury to the abrasion following vaccination in the public schools.

Until a new supply of virus arrives in St. Louis no more vaccinations will be performed, according to Health Commissioner Bond's statement yesterday.

The Kuntz boy was successfully veccinated by Dr. Houck, October 4. The parents say the wound was healing nicely until Sunday, when the child complained of a severe headache, and was put to bed for the night. Shortly after midnight he was attacked with convulsions and Dr. M. C. Starkloff, 7619 South Broadway, was called. Dr. Starkloff says that the scab had been removed and a shield placed over the wound. He is of the opinion that the infection causing tetanus to set in was due to the removal of the scab.

Four other children are seriously ill resulting from vaccinations of Board of Health physicians. These children and the dead boy were vaccinated at the Carondelet School.

It has been rumored that several children were vaccinated from the same vaccine point. This is denied by the health authorities.

Dr. Woodruff, Board of Health physician, who examined the boy before he died, said: "I believe the wound was infected by the removal of the scab, thus allowing tetanus to set in, causing the Kuntz boy's death."

Dr. Starkloff said: "I am of the opinion that the wound became diseased when Mrs. Kuntz placed the shield on the boy's arm after the scab was removed."

William Kuntz, father of the boy, said: "The wound was kept absolutely clean from dirt. The death was the fault of the serum, and I am going to probe it to the fullest extent."

Compulsory Typhoid Vaccination

The following is an editorial from the *New York Globe* of recent date:

Vaccination against typhoid appears to be steadily growing in popularity among sanitary experts. Its use in the United States army has been so successful that every soldier is advised to submit himself to the treatment, and there is considerable sentiment in favor of making such a precaution obligatory on all the men.

Something like 8,500 army men have submitted to the inoculation, and among them not a single case of post-vaccination typhoid has occured. In the remainder of the army, during the same period, 200 men have contracted the disease.

The vaccine used consists of dead typhoid germs, which are injected, preferably into the arm, in three doses, ten days apart. The first injection contains 500,000,000 germ corpses, the second and third 1,000,000,000 each. The protection afforded is said to last about three years. The vaccination is not dangerous, and rarely causes a severe reaction. Our military surgeons were very slow in taking up the treatment, but once at it they seem to have rapidly made up for lost time.

The sentiment for making it obligatory will become more than "sentiment" if the measures proposing the Federal Department or Bureau of Health be enacted. One of the measures before the last session of Congress proposed to make all persons engaged in interstate commerce, which would include trainmen, etc., going from one state to another, and maybe commercial traveling men, subject to this same form of compulsory vaccination against typhoid.

In view of the trouble that so frequently follows vaccination, what if a few of those two and a half billion germs should still be alive! The last statement in the article quoted, that the surgeons are making up for lost time, will be believed by every reader. Nowhere are fads so overdone as in medicine. They have so little that they can rely on, that when they get a chance to use something that has come from orthodox sources and claims results, they jump at it, and "make up for lost time" as the *Globe* says.

Drawing the Lines in Oklahoma

Press dispatches tell of a medical war on in Oklahoma. A state convention of all schools of practice recognized by the state other than the allopathic, was recently held at Guthrie, and passed resolutions condemning Commissioner of Health Mahr as follows:

"We condemn the state commissioner of

health for using his office for political purposes by compelling county superintendents of health of the various counties of the state to contribute funds to advance his political interests."

A permanent organization was effected, to be known as the State Medical Association of Oklahoma, chartered, and officers elected as follows: Dr. J. A. Wharton, physio-medical, president; Dr. J. A. Price, osteopath, Oklahoma City, vice-president; Dr. G. H. Stagner, electic, secretary; Dr. I. L. Moyer, homeopath, treasurer.

Other resolutions adopted commended the state board of medical examinations for keeping out of politics and upholding the standard of the medical profession, the president and secretary being especially mentioned; condemning the Owen bill in congress, or any similar bill that tends to concentrate the medical authority in any one school; condemning the efforts of the allopaths in trying to establish a medical department at the state university at state expense without recognition for other schools.

The state which is honored by having the author of the Owen bill represent it in the U. S. Senate, seems to be awakening. The several schools of medicine might as well realize that they have a common enemy in the allopathic machinery. It is refreshing and possibly hopeful, to see the homeopathic and eclectic schools show enough life left to even resent this gross impropriety. Truly the A. M. A. is "getting into politics."

Our Present Activities

There are three lines along which our thought and activities at this time should be directed. First, the advancement and establishing upon a firm basis of our educational institutions; second, the securing of legislation which gives us the opportunity to develop our school of practice; third, the safeguarding of surgery lest we become fascinated by this present-day craze.

(1) The profession is apparently awakening to its duty in regard to the school situation. To a great extent we shall be known by our educational system. No school of medical practice in this age could long weather the storm of public criticism and censure, even if it should secure legislative permission to practice, unless it approximates the educational requirements of the day. This will be true at least after a time and in spite of the success of its representatives in the field of practice. The education of its practitioners is the mark and test of a profession. Without maintaining educational institutions abreast of the time, the practice is reflected upon, and its practitioners more or less discredited It must come about that our practitioners are forced to apologize for our colleges.

Let us look at the situation as it is: Five or six thousand regularly graduated practitioners have their future as members of a learned profession not so much in their own hands as in the keeping of the colleges—the educational system of the profession. The individual success of the several practitioners of the respective communities may be maintained by his personal qualities and efforts of each for himself, but if the educational institutions fail, even these successful physicians must maintain themselves as individuals, and all who have not a large personal following must drop out.

The profession cannot maintain itself as such unless its schools maintain themselves. The osteopathic colleges have inducted into the world as professional people several thousand men and women who entered this work in good faith. As shown above, their standing in their communities, their self-respect and their chance for success are dependent on the colleges keeping abreast of the spirit of the present.

On the other hand this relation is reciprocal and interdependent. If the colleges must take cognizance of the effect of their activities and if they must do and not do because of these considera-

tions, these individuals have an obligation to support the colleges. Further, if the individual meets these obligations, gives money to the colleges or makes it his business to direct students to them, he is entitled to know that with this support the colleges are preparing for their permanent maintenance and not that the returns should all be treated as the personal funds of the owners.

In the start these institutions of necessity were the result of private capital. There was no other means by which they could start and exist; but with present tendency an arrangement must be figured out, just and agreeable to the schools, but which will eventually cause them to cease to be private property—commercial institutions.

As the owners of our present colleges or their predecessors in this work took large risks and ventures in establishing our educational institutions, whatever now may be our position due to growth and changed relations, we cannot forget that these individuals have made possible our existence as a profession. It is believed that the Associated Colleges and the A. O. A. can work out some plan which will meet the demands growing more and more urgent, that medical colleges be non-commercial.

In addition to keeping up our colleges the Research Institute is urgently needing the profession's attention. The JOURNAL has pointed out many times within the past few years the absolute necessity of developing the scientific side of osteopathy. It has been proven that this demonstration can be made and that we have several scientists able to do this work. It only remains for the profession to put this move on a sure basis, especially to prove its interest in this kind of work and to prove its desire to have it done. Without this spirit in the profession it is not ready for this work, and even if some philanthropist should finance it, or our workers donate their labors, this would not meet our needs until we ourselves have warmed up to the need of it. To be appreciated it must not come too easy. Mr. Rockefeller only recently gave over eight million dollars to endow his Institute of Medical Research. When we are awakened to the needs along this line and do our part, the rest that may be needed will come easy. Every member of the profession ought to contribute something, if only ten dollars a year to this fund. Make a pledge of one hundred dollars payable twenty dollars a year for five years and see how fast this movement will grow.

(2) The legislative question has always been a serious one. It is a serious concern at this time. This situation exists solely on account of the prejudice and self-interest of the politicians in medicine which stirs them to opposition. There has never been opposition to the enactment of osteopathic legislation except from them directly or inspired by them. Why should they oppose it? What is their idea of medical legislation? Is the purpose of it to protect the public in what it wants, or is it to secure to them the perpetuating of the monopoly they enjoy in taking care of the sick? It is a fact that the state has nothing to do with testing or passing on the efficiency of a remedy or system. If the people want a system of if a citizen wants to practice a system, the business of the state is to see that those who would practice it measure up to reasonable qualifications as to general education, knowledge of diseases, and remedies proposed to be used. It is or should be entirely wide of the mark to discuss before legislatures the merits or demerits of osteopathy as a system of therapeutics. The question is (a) do the people want it or are there citizens who want to practice it, and (b)

to set some regulation to test for the minimum amount of knowledge the practitioners shall possess.

The second proposition is the only one needing consideration. What form of regulation shall the state enact? The osteopathic school of practice is committed to the proposition that the test for the practice of the "gentle art of healing" should be definite and specific, and extend to the applicant's knowledge of what he is to do and not merely examine into the so-called fundamentals. Absolutely the only reason for the latter idea in examination for the practice of medicine is the effort of the allopathic school to have the public look on the practice of medicine as a unit and not divided into schools or "sects." "The practice of medicine is one and we are it" is its attitude with the public and they have worked it until the other drug-giving schools are almost lost and they would already have eliminated osteopathy had we submitted to their schemes. The only way to appear to have but one practice, is to omit from examination points wherein they disagree. Absolutely the only hope for osteopathy, viewed as a permanent and distinct school of healing or as a reformation in the world of therapeutics, is for our colleges to develop a distinct and characteristic presentation of many, if not all, of the fundamental subjects, teaching them with reference to their place in the practice of osteopathy and preparing thoroughly the student to meet the demands of the public for a physician; but above all not to send him out as a graduate in osteopathy until he believes in osteopathy, and is content to practice osteopathy. If a four years' course is necessary for this, then let us welcome four years of work for the student.

We shall not lack for students. Required preparation for practice is not going to permanently keep students from taking up the work. It is competent physicians, thoroughly grounded and believing in osteopathy, that will make us friends before the public and legislatures.

The function of the examining board besides conducting the examination is to safeguard, to build up, and develop the practice it has in charge. Can it be supposed that medical men who stand in with the medical machine and hence compose the examining board will give any time to developing or to safeguarding the practice of osteopathy in the state? If the people of a state are entitled to have osteopathy, or anything else, they are entitled to have it at its best. They will get it at its best when the schools can prepare students to become practitioners rather than to prepare them to meet an examining board of medical men.

This question of legislation is not one of expediency or for individual fancy or whim; but it is fundamental and lies at the basis of the development of osteopathy, either stressing the characteristic principles of the system and thus insuring osteopathists of its representatives, or making of it the hand-maiden of allopathic medicine, preparing practitioners to meet the requirements of medical men who appreciate the opportunity that this examination gives them.

Now for the first time we are confronted with National legislation. After a score of years the American Medical Association has succeeded in getting before Congress its proposition to group all of the medical, sanitary and hygenic activities of the government under one head and place these in its charge with its leading politician as a member of the cabinet of the President of the United States. The boldness of their propositions and the zeal of their activity in pushing them are due causes for public alarm.

As a profession we have taken a conservative position with reference to these

measures. We are not objecting to measures simply because the A. M. A. favors them; we are not opposing them because they might be of advantage to the A. M. A. As a matter of fact, we do not categorically oppose measures having the objects set forth in these bills. However, the A. M. A. is irrevocably committed to the unifying and standardizing of the healing art, and any and all measures having this in view or permitting of giving that organization more power to enforce these principles, we must oppose.

The measures considered by Congress at the last session would undoubtedly grant this power. Should the same or similar measures be considered by Congress at the coming session, it will be our duty to oppose this feature of them. But we do not know that these measures will be considered or what features may be eliminated, and not knowing this, we are not justified in actively opposing them in advance. We do know that the A. M. A. is still very active, and that President Taft has publicly promised his support to these measures, and the presumption is that he will make the passage of some such measure a recommendation in his annual message to Congress. We should, therefore, be prepared and if this great medical machine forces these features which we must oppose, into bills and presses them at the coming session, we should be ready to secure the help of influential friends in bringing about their defeat.

(3) No medical body need apologize for urging measures looking to rendering the practice of surgery more conservative and sane. Even the layman recognizes the brutal recklessness of much that is done in the name of surgery. As a school, and as intelligent informed men and women, we recognize the importance and indispensable office of surgery; but more often we see results of its abuse.

Present-day man is not so far removed from his ancestors but that he finds fascination in the smell of the fresh blood he is shedding. Then, too, the nature of surgery is attractive and easily warps one's judgment. It is so much easier to urge the exploratory incision (how attractive to see the unrevealed!) than to watch and study the symptoms and indications, and patiently wait the possible diagnosis. How much easier with sharp scalpel to remove the offending viscus, though mayhap life may ebb out with it, than to patiently work with the sufferer in aiding nature to restore or strengthen the diseased or weakened member. And how much more attractive the fee! Undeniably this is the attitude of the vast majority of practitioners who have had a taste of surgery.

Let us stand resolutely against the growing danger there is to the American people from surgery, but let use be wise and know when surgery is needed, and perform it, or direct its being done.

These three points are worthy of our serious concern.

Transportation Committee

Dr. Jos. H. Sullivan, Chairman, Trude Building, Chicago, Ill.

Dr. D. C. Farnham, 1820 Sutter St., San Francisco.

Dr. W. A. Rogers, Marquam Bldg., Portland, Ore.

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Dr. A. B. King, Third National Bank Building, St. Louis, Mo.

Dr. Chas. S. Green, 136 Madison Avenue, New York City.

Dr. John T. Bass, 624 Empire Bldg., Denver, Col.

Dr. Ira Spencer Frame, 1619 Race Street, Philadelphia, Pa.

Dr. Jos. H. Sullivan has already taken up our transportation problems and he has assurances of goad rates for the meeting.

Current Literature and Comment

The Old Doctor's New Book

I was glad to see the editorial in the October issue commending the recent work of the Old Doctor. I wish every osteopathist would become familiar with his book, for it is by far the best of the writings of Dr. Still.

It states the osteopathic fundamentals very clearly and is so pregnant with much good advice and excellent suggestions. It was in pleasure some months ago to reread all his works having specially in view an article for an encyclopedia. This late work served my purpose well in securing excerpts that brought out the tenets authoritatively, comprehensively and lucidly.

Here is an interesting paragraph bearing upon a question frequently asked, the discovery of osteopathy: "The mechanical principles on which osteopathy is based are as old as the Universe. I discovered them while I was in Kansas. You can call the discovery accidental or purely philosophical. I was in the practice of medicine and had been for several years. I treated my patients as other physicians did. A part of them got well and a part died. Others, both old and young, got sick and got well without the assistance of the medical doctor. * * * * I began to experiment with man's body as a master mechanic would do when he had in his charge any machinery which needed to be kept perfectly adjusted and in line, in order to get perfect work. There are many means by which a machine may be adjusted. An osteopathic operator is not expected to depend on any one method or manipulation for the adjustment of a bone.

"I worked along faithfully, patiently, hopefully, finding out that the human body was just as liable to strains and variations as a steam engine, and that after correcting the strains and variations, health was sure to follow. I was many years philosophizing, comparing and noticing results which followed taking off strains and pressures. I was surprised to see fever, congestion, and all irregularities give way, health restored and the results were good and satisfactory."

Few know how faithful, patient and hopeful the Old Doctor has been through it all. His many years of philosophizing were interspersed with many trials and tribulations. Truly his work has been that of a pioneer. It was only gradual that osteopathic philosophy was developed from small beginnings to a system of grand proportions and undoubted merit. But beneath all of this, only those who have for years been closely associated with Dr. Still can partially realize the resolute and unwavering courage of him, beset with every possible discouragement, through the many years of labor, anxiety and poverty. It seems that the man of destiny must be possessed of an iron will. Dr. Still possessed something else as well—an abiding faith in nature's laws, knowing full well that their interpretation but added greater reverence for them. Do we begin to appreciate what a great heritage has been vouchsafed to us?

Here is another paragraph taken at random: "For thirty-five years I have observed man's body with the eye of a mechanic so that I could behold and see the execution of the work for which it was designed, and I have come to this conclusion: The better I am acquainted with the parts and principles of this machine, man—the louder it speaks that from start to finish it is the work of some trustworthy architect; and all the mysteries concerning health disappear just in proportion to man's acquaintance with this sacred product, its parts and principles, separate, united, and in action. It is an honor to be its Builder who should be respected for the perfection set forth and shown by man as a product of Life and its constructive intelligence."

Herein lies the key-note of osteopathy—an understanding of the anatomical and physiological so that when disorder or disease arises, the biochemical may be righted through the principles of architectural adjustment. What a world of thought and study! Is it any wonder with the clear and comprehensive view Dr. Still enjoys that he is continually exhorting us to study, study, study anatomy? No one is so foolish to-day as to think he can improve upon divine architecture, or to change or to add to existing laws, but it is within every osteopathist's grasp to realize, and at least partially understand, nature's immutable laws and to assist in righting a disordered mechanism so that health may be restored, provided his anatomical education is a living fact, and not merely an interesting study.

Again, Dr. Still tells us: "The osteopath who succeeds best does so because he looks to Nature for knowledge and obeys her teaching; then he gets good results. He is often amazed to see how faithfully Nature sticks to system. A few years spent in the school of Nature teaches the osteopath that principles govern the Universe, and he must obey all orders, or fail to cure his patients. We say disease when we should say effect: for disease is the effect of a change in the parts of the physical body. Disease in an abnormal body is just as natural as is health when all parts are in place. One asks how we may know the normal. Surely we know when the

hat fits the head or the pants the legs. We should know the normal places of all bones, and their uses; how one is attached to another; where blood and nerve supply come from and how. If we do not we must learn or we will blunder and fail, because no variation will be allowed if we get health."

Turning over a few more pages, we note the following: "For thirty-five years I have labored to acquaint myself with the exact form of every bone that belongs to the framework of man's whole body. I have given attention not only to the form of each bone but also to why it is different in form and action from all other bones; to its exact location and articulation so that when it is removed from its place I know just where it belongs and how to take it and place it in the position that the Builder intended for it. For days, months and years, and many of them, I have examined and criticised the normal and the abnormal position of all bones of the whole system. By this extensive study I have formed in my head a perpetual image of every articulation in the framework of the human body."

Those intimately acquainted with Dr. Still, know this to be the literal truth. This is a modest statement for his anatomical knowledge is really wonderful. And it is a knowledge that is eminently precise and practical. His understanding of anatomy is not confined to mere surface markings or to gross architecture, but to him a picture embryologic, physiologic and chemical is presented and all bearing upon the one great theme—how can all these apparent heterogeneous facts be correlated and practically applied to the relief of humanity. And it is no disgrace to our thousands of practitioners to say not a single one approaches him in the true and comprehensive understanding of Nature's laws. Somewhere in his autobiography he says: "To know all of a bone in its entirety would close both ends of an eternity."

Alas! how little we know the Old Doctor. Probably we are still too near him and his work to obtain anything like a true perspective. But our reverence and love can not be otherwise than intense when we momentarily halt and note our relations to our fellow men.

CARL P. MCCONNELL, D. O.

CHICAGO.

Dr. McConkey on the Cause of Cancer

In the *Medical Record* (August 20, 1910), Dr. McConkey contributes an important paper on this subject, in which he presents anew evidence seemingly sufficiently conclusive that the tubercle bacillus is the cause of malignant growths. In a previous paper published in the *New York Medical Journal* (December 19, 1908), he first presented this view to the medical world. "There is such an embarassment of riches in the way of evidence pointing little finger boards to the truth of this theory of cancer . . . and I cannot find a single contradictory fact after more than two years of investigation. The fundamental conception in this hypothesis is that the tubercle bacillus, by reason of its well-known effect of causing normal tissue cells to take on the habit of proliferation, supplies the missing factor in the etiology of cancer. In the young or robust this cell proliferation is normally checked by a defensive reaction on the part of the body, and a 'tubercle' is formed by the encapsulation of the minute colony of proliferating cells. But if this cell proliferation is set up in one in whom the defensive reaction is delayed or inadequate, the encapsulation does not take place and the proliferation continues, with the result of its becoming a malignant growth." If the malignancy of a tumor is but a manifestation of the power of growth, this habit of growth in place of the habit of work by the primary cells caused by a "primary stimulus," Dr. McConkey sees in the tubercle bacillus the agency above all others capable of developing a colony of cells all tending to proliferate. He makes his point good by effective quotation from recognized authorities and text-book facts in the histogenesis of the tubercle and cancer. "There is no mystery about cancer if we will only open our eyes and see. What is needed is not so much new facts as the correct interpretation of well-known facts. The experimental production of malignant growths by means of tubercle bacillus is certain to be accomplished soon, and in order to hasten this event I am going to offer some suggestions to laboratory workers," which he proceeds to do and which we hope will be earnestly accepted and tested. What an opportunity for the cancer research work so lavishly endowed by Crocker to avail itself of this original thinker and investigator here in our midst!—*Pacific Coast Journal of Homeopathy.*

"The Newer Perils"

Among other diseases, under the heading "The Newer Perils," an editorial in the October number of the *Medical Council*, discusses Infantile Paralysis, summing up the present-day knowledge of the disease and its treatment, from the viewpoint of the regular school.

The following extracts from the article are interesting, not only as refreshing our memories in regard to a disease which seems to be increasing in prevalence, but as being indicative of the utter, impotency of drug therapy as a curative agency in so malevolent

an ailment. While not gloating over the helplessness of other systems of practice, the competent osteopathist may assume control of these cases with a confidence that he can not only do all for them that the drug practician can, but that he has in finger tips a potency far outweighing, perhaps, all of the other measures combined.

"Infantile paralysis, or acute anterior poliomyelitis, is not really a tropical disease, but one occuring almost exclusively in hot weather or in the early fall. It is badly named, in that it is neither an exclusively infantile disease nor one in which it is at all proven that the anterior horn of the cord is the essential seat of the lesion. Neurologists have done but little to clear up the essential pathology of the disease, even text-books of 1910, written from the point of view of the neurologist, failing to discuss adequately the infectious element so nearly proven to be the dangerous factor of the situation."

* * * * *

"The disease should be called acute poliomyelitis, and should be sharply differentiated from the ordinary paralyses of children to be later considered. The great bulk of cases occur in young children of previously good or fair health, but young adults are subject to it, although it does not occur in persons over forty years of age. While widely distributed, it occurs in the United States principally during the months of July, August and September, although some cases, and even some epidermics, may begin in June and persist into October. It is not known why warm weather favors the dissemination of the infection."

* * * * *

"The infectious agent has not been iolated or defined, although cord tissue injected into monkeys produces a disease very similar to that of the man from whom the cord was taken. It is as definitely proven to be infectious as are measles and scarlatina.

"The pathology is marked by congestion of blood vessels in both the white and the gray matter of the cord and accompanied by a proliferation of cells in the cord, the meninges and the more vascular portions of the brain. This is followed by retrograde changes in the nerve cells and fibers. The hope of recovery is in resolution, while fibrosis is the element tending toward permanent lesions or damage.

"The symptoms may be very suddenly ushered in, depending somewhat upon the severity of the attack. The temperature ranges from 100 to 103 degrees F. There may be early vomiting or convulsions, but in mild cases they are usually absent. In a day or two the patient loses the power of both legs and cannot walk or stand, and the paralysis commonly extends to the arms as well. Moving or handling the child hurts him and he appears to suffer some pain, even while quiet. In this early stage worrying the patient with very active treatment is not justified, especially since the stomach is very irritable. About the fourth or fifth day the constitutional symptoms largely disappear and power of movement returns, except that usually one leg is more or less defective and often seriously involved. At two weeks the muscular power is in a fair state, but the muscles remain flabby while the involved leg is limp, cold and lifeless. There is an absence of tendon reflexes, although cutaneous sensibility is not impaired. There is incontinence of urine in very young children and frequently a paralysis of the anus. Mild cases have few constitutional disturbances. In severe and fatal cases all four limbs may remain paralyzed, while in fulminating cases the muscles of respiration and deglutition are paralyzed and the case soon ends fatally. Some of these cases have meningeal complications or at least meningeal symptoms.

"When recovery is the outcome, as it is in a large proportion of cases, natural repair continues often up to eighteen months. After this the resultant conditions are permanent. Nature does much for many cases, while others drag through a very constrained existence after recovery from the initial illness.

* * * * *

"As to prophylaxis we know little, if anything, as yet. The general rules of isolation and quarantine may or may not be as necessary as in the acute examthems. We do not know. It is wiser to be upon the safe side, if we err upon either one.

"Treatment we do not intend discussing at length in this article. Thus far no drug has proven effective, and we must be guided largely by symptoms and meet what indications are the most distressing. Electricity, massage, orthopedic surgery, tendon transplantation and mechanical means generally are commended, although it must be admitted that the tendon operations have not been brilliant successes thus far. When cases recover it is usually because they were mild rather than from the influence of any drug upon the course of the disease.

"It is to be hoped that physicians will avoid frightening the public. By the time these lines are printed the danger in this season will be almost over. The disease is one with a history rather peculiar, but one showing few disastrous epidemics. Certainly it is that the disease is one which all physicians should endeavor to understand and properly diagnosticate and invariably report to the board of health."

FRANK I. FURRY, D. O.

Surgery of Nose and Throat Run Wild

In this so-called scientific age, when the desire of the physician joins the demand of the patient for the utilization of methods which produce immediate, if not always desirable results, we must avoid the present tendency toward too frequent resort to the knife. Substituting the osteopathic constitutional treatment for the internal medication, we can agree in a great measure with Dr. N. S. Brown, who, in the *Pacific Coast Journal of Homeopathy*, says:

"Take the very common pathological conditions of adenoids, hypertrophical tonsils, engorged turbinates, and not one case out of scores but would respond promptly to rational medicinal treatment, combined with a few common-sense ideas and suggestions about breathing and sleeping-rooms; and when so removed the patient would be in a normal state of health, and no glandular tissue would have been removed. I can't think that Mother Nature ever made nearly as many mistakes as some of our profession seem to think she has; and while tonsilar and adenoid tissue may not be absolutely necessary to life, they surely have some important function to play in the human enonomy, or they would not be there. So when they become diseased, yhy not treat the condition, and try to cure them by removing the cause instead of removing them? There are many remedies in our materia medica that act on such tissue as effectively as the surgeon's knife.

"The nasal defects caused by congested and hypertrophical turbinates are amenable to medicinal treatment and proper breathing, and when you have removed this condition by these methods you have a normal nasal passage and membrane, and not the least in consideration, a patient who is in much better physical condition that when you began, for you have removed by regulating metabolism a condition which had a tendency to undermine the constitution of your patient because of faulty oxygenation and bad habits in breathing. Troubles with ear and eye often come under the observation of the family physician first, and he, with the intimate knowledge of patient and the family history, is able to relieve conditions and tendency to conditions in a manner beneficial to the physician, as well a sthe patient. In catarrhal otitis an early overhauling of the case will simplify things very much, and it is the general practitioner who usually does this, and if he goes into the thing carefully, he will as a rule relieve conditions with remedies and have no need to puncture drum, remove ossicles or perform an operation for mastoid abscess later. These conditions can be controlled as a rule by constitutional treatment, and who is so competent to prescribe such as the family physician, who possibly was present at the birth of the individuals under consideration and who has tended them through the many and various illnesses of childhood, and who is thoroughly familiar with all the idiosyncrasies of both father and mother?"

Dr. Smith Returns to Scotland

After giving much space to headliners, one of the Edinburg papers has this to say of a reception given to Dr. and Mrs. William Smith by Dr. Franklin Hudson and wife:

After an absence of more than eighteen years—most of which was spent in the study, teaching and practice of osteopathy, in the states, Dr. Smith returns to his native land to practice and preach osteopathy.

On the evening of October 15th, Dr. and Mrs. Hudson had the pleasure of entertaining Dr. Smith and his charming wife in their home at 12 Lansdowne Crescent, Edinburgh.

All who have the pleasure of knowing "Dr. Bill," know that he is chock full and bubbling over with the gospel of pure, unadulterated osteopathy, and that there is nothing he enjoys quite so much as spreading the good news among his associates.

On this occasion he kindly consented to give his famous lecture "Osteopathy" to some forty or fifty friends and patients who were assembled by special invitation to meet Dr. and Mrs. Smith.

The lecture lasted for an hour and a half, which seemed only too short, under Dr. Smith's fluent and forceful description of his early experience in osteopathy. The lecture was profusely illustrated with many lime-light pictures, from photos which were made by himself, of the Old Doctor, and early scenes in the development of our science. Dr. Smith is an able and forceful speaker, and scored many strong points for osteopathy.

All expressed themselves as being pleased with the lecture, and grateful for the opportunity of learning more about osteopathy.

Light refreshments were served.

State and Local Societies

NEW YORK

The twelfth annual meeting of the New York Osteopathic Society was held at the Waldorf Astoria, October 26. The morning session was devoted to the business of the organization, when reports by President W. L. Buster; Secretary G. E. Phillips and Treasurer J. H.

McDowell, were read and received. Routine business including the election of new members, appointment of committees, etc., was despatched. A nominating committee was appointed and its report was adopted without division.

[Report printed in next issue.—EDITOR.]

NEW YORK CITY

The October meeting of the O. S. O., N. Y. was held at the Waldorf Astoria October 25. More than a hundred of the osteopathists of the Metropolitan section were present and the meeting was a very enthusiastic one.

E. C. Link, of Elizabeth, formerly of the faculty of the American School of Osteopathy, gave a very interesting paper on the "Spastic Conditions," followed by discussion led by Dr. Ben F. Still, of Elizabeth, N. J., and Dr. Beam, of Brooklyn.

Dr. Franklin Fiske, of New York, also formerly of the American School of Osteopathy, gave a good demonstration of the technique of the upper dorsal area.

These able practitioners have added materially to the forces in New York, and the coming year is opening up with uncommon interest and enthusiasm.

Dr. Charles S. Greene, president of the City Society, has been exceedingly active in arranging for good programs and attending to the work of organization generally, and in this way is bringing about unusual good will and interest. The questions he had sent out sometime previously to all the members of the osteopathic profession in the Metropolitan section, dealing with the special privilege clause of our ethics, was well received by most of the osteopathists, and while the answers differed somewhat, a decided majority seemed to stand for good, clean ethical education for the laity. The day seems to be passing when the osteopathist, at least in this section, can feel that it pays him at all even in dollars and cents to send out literature promiscuously let alone the knowledge of the harm that it has done to himself and to the profession and science. Most of the foremost osteopaths in the Metropolitan section are unanimous in their opinion that while the public, as a whole, needs to know more of osteopathy, this knowledge must come in the right manner and through the proper channels to have the greatest influence for good. No doubt, in order to settle this question for the best interests of all concerned, the City Society will need take up the problem of publishing and distributing of a first-class literature. This will no doubt be considered later.

The October meeting was held a little earlier in the month so as to make it a joint meeting with the State Society, which was held all day Wednesday the 26.

A. B. CLARK, D. O., *Sec'y.*

MARYLAND

The Maryland Osteopathic Association held its fifth annual meeting on October 1, in Baltimore. As an evidence of the interest felt by the members in the association work, one hundred per cent. of the state membership was present and two new members were added to the list. The meeting was enthusiastic and many matters relative to the establishment of osteopathy in the state were discussed. Officers were elected as follows: President, Aloha M. Kirkpatrick, Baltimore; vice-president, Dr. Grace R. McMains, Baltimore; secretary and treasurer, Dr. Henry A. McMains, Baltimore.

H. A. MCMAINS, *Sec'y.*

DENVER

The regular monthly meeting of the Denver association was held October 1. The paper of the evening by Dr. R. R. Daniels "Pelvic Enlargements and Inflammations," was much appreciated and discussed. The Colorado association has already begun its legislative work with Dr. D. L. Clark in charge. At this meeting he gave an interesting report of what he had already accomplished, both in securing cooperation of the practitioners of the state and in becoming acquainted with members of the legislature.

CORA G. PARMELEE, *Sec'y.*

IOWA

The second district of the osteopathic association held its semi-annual meeting at Cedar Rapids, November 3. Twenty-one practitioners were present, among the number Dr. S. L. Taylor, of Still College, who was greatly helpful to those present. Program as follows: "Opening address," W. M. Furnish; paper, "Convulsions," Dr. Metta Burd; "Osteopathic Diagnosis and Corrective Treatment," E. H. Beaven; "Poliomyelitis," C. C. Hitchcock, followed by discussion; "Echoes from A. O. A. Convention," Margaret A. Hawk; "Shoulder Dislocation and Diseases," S. L. Taylor, followed by clinics and an evening session, "A Round Table," conducted by S. L. Taylor.

E. M. STEWART, *Secy'y.*

The profession in the fifth Iowa district met in annual session October 6, at Sioux City. Dr. Ella Gilmour, Sioux City, was elected president, and M. E. Brown, of Sioux City, vice-president; James E. Ray, LeMars, secretary and treasurer. Dr. U. S. Parish, of Storm Lake, addressed the meeting, urging the importance of the osteopathic board for examining applicants for practice in the state. The extension of the course from three to four years was also considered.

NEW JERSEY

The tenth annual meeting of the New Jersey Osteopathic Society was held in Newark, October 15. D. Webb Granberry, in the president's address, discussed the justice and necessity of the separate board for osteopathic examinations. His statement of this proposition was very concise, logical and convincing. E. C. Link, of Elizabeth, conducted clinics and demonstrated technique. "Internal Secretions" was the subject of the address by E. E. Tucker, of New York, and "Diagnosis" was the subject of a lecture by Ralph H. Williams, of Rochester, N. Y. "Philosophy of Manipulation" was the subject of a paper by Walter L. Beitel, of Philadelphia. "Pneumonia" was the subject assigned to Franklin Fiske, of New York, who was unable to be present. Women in osteopathy was responded to by Thomas H. Spence.

At the evening session officers were elected as follows: President, D. Webb Granberry, Orange; vice-president, Agnes Ussing, Cranford; secretary, F. M. Plummer, Orange; treasurer, Hardy W. Carlisle, Paterson. The organization expects to present a bill to the legislature at the coming session.

MISSOURI

The Northwest Missouri Osteopathic Association held its quarterly meeting in Kansas City, October 13. George J. Connelly, Kansas City, was elected president; B. J. Mavity, Nevada, vice-president, and Bertha Whiteside, Kansas City, secretary. Several papers were read and a clinic on infantile paralysis conducted.

OHIO

The osteopathic physicians of Central Ohio met at Columbus, October 28, for the purpose of forming an organization, and will perfect the organization at an early meeting. The meeting was addressed by S. L. A. Bumstead, of Delaware, Ohio, who has just returned from Europe, where he spent five months in the Vienna clinics.

MICHIGAN

At the annual meeting of the state society held October 8, the following were elected as officers: President, T. L. Herroder, Detroit; vice-president, J. E. Downing, Bay City; secretary, Rebecca Mayers, Detroit; treasurer, R. R. Northway, Mt. Pleasant; chairman of Executive committee, W. H. Jones, Adrian. A legislative committee was also appointed. Dr. Geo. M. Laughlin reduced a congenital dislocation of the hip, and it is believed that the result will be successful.

PHILADELPHIA

The October meeting of the Philadelphia County Osteopathic Society was held in College Hall, 1715 N. Broad Street, on October 27, with a large attendance.

Dr. F. P. Mallard, of Toronto, Ontario, was the speaker of the evening. His subject was "Diseases of the Ear and Their Treatment from an Osteopathic Standpoint." The lecture was illustrated with drawings by the author.

The president, Dr. Flack, asked the co-operation of every member of the society in order to make our meetings as interesting and instructive as possible during the present year.

CECILIA G. CURRAN, D. O., *Sec'y.*

DETROIT

The Detroit Osteopathic Society met in regular monthy session October 12, with the East Side Settlement clinic. Seventeen members spent a profitable evening in examining and discussing clinic cases, in listening to reports from the recent state convention, and in planning for the winter's campaign.

Four new applicants were elected to membership in the society.

REBECCA B. MAYERS, D. O., *Sec'y.*

BOSTON

The September meeting of the Boston Osteopathic Society was held at the Commonwealth Hospital, 518 Commonwealth Avenue. This hospital has been fitted up and will be conducted by Dr. F. W. MacDonald for the benefit of and under the patronage of the osteopathic profession in Boston.

The principal topic of the evening was a paper by Dr. F. A. Dinnette, on the treatment of several cases of cancer of the stomach. An interesting and profitable discussion of the subject followed.

The October meeting was held at Room 510, Huntington Chambers. This is an attractive hall, easily accessible, and has been chosen as a permanent meeting place. Dr. W. Arthur Smith presented some facts and incidents in the history and practice of vaccination, followed by Dr. Effie L. Rogers, with an explanation of the Old Doctor's original and interesting application of the theory of vaccination by the use of the harmless cantharides as described in Dr. Still's recent book.

Infantile paralysis was considered in a symposium, all present contributing information and experience derived from treatment of cases and from study. Several considered that the atlas subluxation is the characteristic lesion, occasioning the decline in vitality and resistance which left the patient open to infection.

ALFRED W. ROGERS, D. O.

Short News Notes

NURSES TRAINING SCHOOL OF A. S. O.

On the evening of October 17th, five of the twenty-two nurses at the A. S. O. Hospital, having completed their study and their service, were granted their diplomas at the public exercises held in Memorial Hall.

The main address of the evening was by Dr. J. A. Grow, of Memphis, whose lecture on the subject of "Service," highly entertained and pleased the audience of six or seven hundred. Rev. Grow is always a good speaker, and on this occasion he outdid himself. He especially eulogized the institution on account of having had the experience of being treated there as a patient last winter.

In addition to the lecture there were several selected musical numbers by the A. S. O. orchestra, and solos by D. R. Gebhart, of the State Normal.

The training school has added six months to its course, and hereafter the course will be thirty months instead of twenty-four.

The graduates almost universally do well, and a number of them are holding important positions in other hospitals. Those graduated at this time were: Misses Cora Gottreu, Frances Gibler, Nort Hibbitts, Ada Smith and Caroline Thomas.

Due to the essential irregularity of entrance in a training school for nurses, graduation has to be held twice a year. The next exercises will be some time in May.

GEO. A. STILL, *Surgeon-in-Chief.*

DR. GEORGE LAUGHLIN'S CLEVER ORTHOPEDIC WORK

In a recent letter from Dr. F. E. Moore, who is doing special work at the A. S. O., he expresses regret that the osteopathic profession at large is not familiar with the skillful operations along orthopedic lines performed by Dr. George Laughlin. He says: "It is not so much the acknowledgment of his skill, which is certainly due Dr. Laughlin, but it means a great deal to the osteopathic profession to know that we have in our profession with a plain D. O. degree, this orthopedic surgeon whose ability in congenital hip and like operations, places him in the front rank of the orthopedic surgeons of the world. Students at A. S. O. and graduates in the field are more or less familiar with Dr. Laughlin's success, but I personally feel that all osteopathic physicians should know of it and realize that unexcelled skill is to be found in our own ranks. Dr. Laughlin is unostentatious to a fault, hence many a child and older patient are being saved from the cripple's life, and the osteopathic profession never so much as hears of it. Often these cases have been treated osteopathically and met failure when they needed the skill of the orthopedic surgeon.

To-day, a congenital hip dislocation in a girl fifteen years old was successfully reduced by Dr. Laughlin before the senior class of two hundred students. Intelligent in his every movement, which according to his methods are devoted to leverage, with no semblance of the spectacular, I observed at the end of twenty minutes the head slip into the acetabulum and in another ten or fifteen minutes the cast applied. Another point, success in a fifteen year old person is an unusual accomplishment, patients from three to seven years being the proper ages for this work.

I love to honor where honor is due, and though one has to force it on Dr. George Laughlin, it is none the less due. But we must remember that the inspiration, teaching and success grounded in other osteopathists as well as Dr. Laughlin, is largely due to the greatest osteopathist in the world, the "Old Doctor."

F. E. MOORE. D. O.

SERIOUS INJURY OF DR. VANDERBURGH

Sunday, October 23, Dr. W. W. Vanderburgh was knocked down by his automobile and severely injured. The machine had been put in the shop to have a trivial repair made, and the mechanic tinkered with the engine and caused the machine to run on two cylinders only, which did not give the car enough power. The car stopped on the steep hill leading into the garage, and Dr. Vanderburgh backed down the hill and hastily got out and cranked the machine without throwing it out of gear or putting on the emergency brake. The car started up the hill, but he had presence of mind enough to brace his feet against the bottom of the radiator, and he was doubled up and pushed up the hill instead of the car passing over him. He was doubled up in such manner that the weight of the heavy machine caused a fracture of the eleventh dorsal and dislocation of the twelfth dorsal and first lumbar vertebrae to the right and posteriorly, and several minor injuries. Drs. Sheldon, Hunkin, Donohue and Henry were called in, and after consultation decided to reduce the dislocation under anesthesia the next morning, which was successfully accomplished. The treatment now consists of full extension of body, the spine resting on two inches of board at seat of injury. This will have to be continued for several weeks, and while the patient necessarily suffers intensely, it now seems certainly that recovery will be complete.—*Western Osteopath.*

CAN'T ACCEPT CERTIFICATES OF OSTEOPATHISTS

The Board of Education of Toronto has recently decided that it can no longer accept the Certificates of Osteopathists as explanation for absence of teachers on account of sickness. The practitioners do not know whether the physicians of the city called the attention of the Board to the law on the point or not, but it is said more than a hundred teachers of the city have the professional services of osteopathists.

The practitioners seem not to blame the Board of Education in this matter and look upon it as not in any sense being a discrimination against them, as the law is very specific and clear. It reads, "Duly qualified medical practitioners," which has always been construed to mean one registered under the Ontario medical act. Hence none of the osteopathists of the city are qualified. The decision came upon a certificate issued by Dr. J. S. Bach, one of the trustees of the A. O. A.

The practitioners of Toronto look upon this decision as another evidence of the necessity of the legislature granting them recognition at the coming session.

DR. WILLARD ADDRESSES STUDENTS

The students of the high school of Missoula, Montana, listened to an address recently by Asa Willard, of that city. Subject: "The Body and Its Care." The newspaper accounts speak of it as a most instructive and interesting address.

This opportunity to address students in the public schools is one that every practitioner should embrace. A lecture weekly or at least monthly should be given in all such schools, teaching practical knowledge of the body. The courses kiven in physiology are no more than very elementary hygiene.

DEATH OF DR. DRENNAN

The profession generally will be pained to know that Dr. T. L. Drennan who had practiced ten or twelve years in Jackson, Tenn., died of typhoid October 20, after an illness of only seven days.

Dr. Drennan had always been active in every move looking toward the upbuilding and establishing of his profession. He was one of the first, if not the first, subscriber to the Research Institute Fund at Put-In-Bay. Besides this he was one of the most active and efficient workers in his state organization.

A PRACTITIONER FINED IN INDIANA

Dr. H. E. Sowers, who has been acting as assistant to Dr. W. H. Johnston, of Fort Wayne, has been fined twenty-five dollars by a jury for practicing in the state without having first obtained a license to do so. The point in the suit seems to have been to test the law as to whether an assistant practicing under a practitioner with a license must also have a license from the state. The verdict of the jury sustains the interpretation that each practitioner must have a license. The press despatches state that an appeal will be taken by Dr. Sowers.

DR. SMITH NOT THE FIRST

In the last issue in speaking of Dr. Ralph K. Smith5s address before a National Association of Physicians in Boston, the statement was made that perhaps he was the first osteopath to address such a meeting. The JOURNAL is informed that Dr. G. H. Carpenter, of Chicago, addressed the National Association of Orificial Surgeons in Chicago, in 1905, on the subject: "Osteopathy in Rectal Conditions."

OSTEOPATH CORONER IN NEW JERSEY

Dr. Robert W. Rogers, of Bound Brook, N. J., was elected coroner of Somerset county by a large majority an the election November 8.

DR. BOLAN HOSPITAL PHYSICIAN

An item of professional interest is the appointment of Dr. Lincoln R. Bolan as visiting physician of the Dearborn Hospital in Melrose. Such appointments will give prestige to the profession and enlarge the appreciation of our work.

BORN

To Dr. and Mrs. J. T. Gilbert, Paducah, Kentucky, September 10, a son, James Thomas Gilbert, Jr.

To Drs. L. Ludlow and Elsie Fletcher Height, on October 15, Los Angeles, a son.

To Dr. and Mrs. Eugene Pellette, of Liberal, Kan., a son.

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